CANADA-JAPAN:
Views on Globalization

1989 NIRA / IRPP Symposium

Edited by
K. Lorne Brownsey

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Foreword

That we live in a global economy has become axiomatic. So too has the recognition that Japan has emerged as the preeminent economic power of the contemporary world. Countries, governments and businesses which ignore these new realities risk their economic future.

This observation holds special relevance for a country like Canada. Being a middle power, critically dependent on trade for our economic health, and increasingly linked through flows of goods, services, investment and people to the countries of the Pacific, we have no choice but to ensure that our public policies and corporate strategies reflect these developments. In the last century we looked East to Europe for our economic and cultural ties; in this century it has been South to the United States; in the next, our horizons must be global but we must pay particular attention to the dynamic societies, led by Japan, emerging in the Asia-Pacific region.

The Institute for Research on Public Policy has undertaken a series of research initiatives that focus on Canada's roles in the Pacific community. This agenda is rooted in the belief that our ability to take advantage of the tremendous economic opportunities present in the Asia-Pacific region depends fundamentally on our ability to overcome cultural barriers based on ignorance and misunderstanding. By collaborating with our counterparts across the Pacific we hope to contribute to the building of a foundation of trust and understanding that will enable Canada to become a full and effective member of the Pacific community.

In particular, the importance of stronger relationships with Japan cannot be understated. Even though Japan is already our second largest trading partner and the source of considerable direct and portfolio investment, the opportunities of the economic

relationship have only just been scratched. For many Japanese, Canada is simply a Northern appendage of the United States, and perhaps a convenient gateway to that market. To change this perception, Canada must invest considerably in activities that will enhance its profile and lead to a greater appreciation in Japan of (what at least we see as) our uniqueness and potential value as a partner in Pacific economic cooperation.

One means of developing this awareness is to foster collaborative research initiatives between Japanese and Canadian researchers and research institutions. Unfortunately, joint research with the developed countries in the Asia-Pacific region has never been adequately supported in Canada. Traditional sponsors such as the Canadian International Development Agency and the International Development Research Center have been constrained by their mandate from assisting Canadian links with countries such as Japan and Korea, our two most important Asia-Pacific trade partners. Business associations and even, until recently, government agencies, such as the Department of External Affairs or Investment Canada, have also not invested anywhere near sufficient effort or resources in background analysis and basic research in these areas.

Given these considerations, the Institute has attached high priority to its collaboration with Japan's National Institute for Research Advancement (NIRA) on a series of bilateral research symposia focusing on public policy issues of concern to both countries. The first IRPP/NIRA meeting took place in Vancouver in 1988 and resulted in publications in both countries of the findings of that meeting. The second meeting was hosted by NIRA in Tokyo in April 1989 and examined issues associated with the global integration of markets. It is from that meeting that the following volume has emerged. Both meetings have proven to be effective mechanisms for sharing research findings among public policy researchers in Japan and Canada and, through the publication of this research, to policy-makers and the public at large. They have also contributed to an expanded research network seeking to develop the analytical underpinnings and mutual understanding essential for durable trade and economic relations with our most important Asian trading partner.

The Institute expresses its gratitude to NIRA, and especially to its President, Dr. Atsushi Shimokobe, for their strong commitment to this collaborative effort and for the hospitality shown to the IRPP delegation that attended the meeting in Tokyo. The Institute is also pleased to acknowledge the generous financial support for the Tokyo meeting and this publication from the Government of British Columbia and the Bank of Tokyo.

Rod Dobell
President

November 1990

Avant-propos

Que nous vivions dans une économie globale n'est plus à démontrer, de même que le fait que le Japon soit devenu la puissance économique prépondérante du monde contemporain. Les pays, les gouvernements et les entreprises qui ne tiennent pas compte de ces réalités mettent en danger leur avenir économique.

La précédente remarque est particulièrement vraie en ce qui concerne le Canada. Étant une puissance moyenne dont la santé économique dépend essentiellement des échanges commerciaux et qui, en outre, se trouve de plus en plus engagée, du fait de la circulation des biens, des services, des investissements et des individus, avec les pays du Pacifique, le Canada n'a pas le choix : il doit faire en sorte que sa politique générale et les stratégies de ses entreprises ne manquent pas de prendre en compte ces nouveaux facteurs. Au 19e siècle, notre attention s'était dirigée à l'est, vers l'Europe, tant du point de vue économique que de celui de la culture; au cours de ce siècle, notre intérêt s'est reporté au sud, vers les États-Unis; au siècle prochain, nos horizons atteindront certes une vision globale, mais nous devrons faire particulièrement attention à ces sociétés dynamiques qui, sous le leadership du Japon, sont en train de s'affirmer dans l'Asie du Pacifique.

L'Institut de recherches politiques s'est engagé dans une série de recherches qui portent sur les rôles que peut jouer le Canada dans la communauté du Pacifique. Le programme de travail de ces recherches part du principe que notre capacité à tirer profit des occasions économiques considérables qui s'offrent à nous dans la région de l'Asie du Pacifique dépend en grande partie de notre aptitude à surmonter les obstacles culturels créés par l'ignorance et les malentendus. C'est en collaborant avec nos partenaires des pays situés de l'autre côté du Pacifique que nous pouvons espérer contribuer à établir une

base solide de confiance et de compréhension, qui permettra au Canada de devenir un membre efficace à part entière de la communauté du Pacifique.

Aussi, l'on n'insistera jamais assez sur l'importance qu'il y a de renforcer nos relations avec le Japon. Même si ce pays occupe déjà la seconde place en importance dans nos échanges internationaux, et même s'il est la source d'investissements considérables, soit directement, soit dans le domaine des valeurs mobilières, les possibilités en matière de relations économiques avec le Japon n'ont été qu'à peine effleurées. Pour beaucoup de Japonais, le Canada n'est qu'une dépendance septentrionale des États-Unis, et peut-être également une porte bien commode pour entrer dans le marché américain. Afin de mettre fin à cette vision des choses, le Canada devra prendre les mesures susceptibles de renforcer son image et d'amener le Japon à mieux apprécier ce qui (à nos yeux du moins) constitue notre identité propre et représente un atout dans le rôle que nous pouvons jouer, en tant que membre de la coopération économique du Pacifique.

Un des moyens d'y parvenir, c'est d'encourager les initiatives de collaboration en matière de recherches entre les spécialistes et les instituts de recherches canadiens et japonais. Malheureusement, ce type d'activités avec les pays développés de l'Asie du Pacifique n'a jamais pu bénéficier, au Canada, d'un appui financier adéquat. Le mandat d'organismes de financement traditionnels, comme l'Agence de coopération et de développement international et le Centre de recherches pour le développement international, ne leur permet pas d'apporter un soutien à des initiatives de rapprochement entre le Canada et des pays comme le Japon et la Corée, nos deux partenaires commerciaux les plus importants dans l'Asie du Pacifique. Les groupes d'affaires et même, jusqu'à récemment, les agences gouvernementales (telles que le ministère des Affaires extérieures ou Investissement Canada), n'ont pas non plus investi suffisamment, loin s'en faut, en efforts et en ressources dans le domaine de l'analyse contextuelle et de la recherche de base, relativement à cette région.

Étant donné ce qui précède, l'Institut a donné une grande importance, dans l'ordre de ses priorités, à sa collaboration avec l'Institut national pour l'avancement de la recherche (INAR) du Japon, à l'occasion d'une série de rencontres sur la recherche bilatérale que ces deux organismes poursuivent en matière de politique générale intéressant le Canada et le Japon. La première rencontre entre l'IRP et l'INAR s'est tenue à Vancouver en 1988 et a donné lieu à des publications dans les deux pays. La seconde rencontre, qui s'est déroulée à Tokyo en avril 1989, sous les auspices de l'INAR, était consacrée à l'examen des questions d'intégration des marchés dans un système global. Le présent volume est le fruit de cette dernière rencontre. Les deux symposiums se sont révélé efficaces pour l'échange des résultats de recherches effectuées au Canada et au Japon. Grâce à la publication de cet ouvrage, les résultats de recherches peuvent être également portés à la connaissance des hommes politiques et du grand public. Ces rencontres ont aussi permis d'élargir le champ des recherches entreprises pour dégager les principes analytiques fondamentaux et créer le climat de compréhension mutuelle indispensable pour promouvoir des relations économiques et commerciales durables entre notre pays et son partenaire économique le plus important de l'Asie du Pacifique.

L'Institut tient à exprimer toute sa gratitude à l'INAR, et plus spécialement à son président, le Dr. Atsushi Shimokobe, pour les efforts considérables déployés, avec notre

concours, en vue d'atteindre cet objectif commun, et pour leur généreuse hospitalité à l'égard de la délégation de l'IRP lors de la rencontre de Tokyo. C'est également avec grand plaisir que l'Institut remercie ici le gouvernement de Colombie-Britannique et la Banque de Tokyo du généreux appui financier que ces deux institutions ont bien voulu lui octroyer pour la rencontre de Tokyo et la réalisation de la présente publication.

Rod Dobell
Président
Novembre 1990

Introduction

K. Lorne Brownsey

Globalization is a word that has quickly become part of our lexicon even though many of us would be hard pressed to explain exactly what it means. Despite this lack of definitional precision, there is nevertheless a widely-held perception that globalization encompasses a vast array of forces that are changing the very pattern of human interaction. Driven by a technological revolution, goods, services, ideas, money, and people, can, and do, move around the globe at a speed unimaginable only a few years ago. As individuals and nations, we shop, bank, communicate, seek our entertainment and engage in a host of other daily activities in an international marketplace. Paradoxically, however, in an era of mergers and transnational corporations, we also witness that this explosion of global exchange is being handled by fewer and vastly more powerful corporations, whose national affiliation is often vague, if existent at all.

In the midst of all this, our decision makers must confront the dilemma that the process of domestic governance is becoming increasingly complicated by an internationally-spun web of economic, social and environmental factors. In fact, in many cases, neither the problems nations face, or the solutions to them, are of their own making. This has led to a profusion of regional and supranational institutions for purposes of policy coordination, economic cooperation and problem resolution.

It is clear that the new reality is a global reality and that the nation state system is evolving in new and important ways. Some would go so far as to argue that the nation state system itself is becoming obsolete, as national boundaries are assaulted from without by global forces and from within by intensified community identifications, be they religious, ethnic, linguistic or issue-oriented.

Whether or not nations are anachronistic is obviously a highly debatable point. But what is not debatable is the importance of understanding the nature of the stresses on our political, economic, and social institutions and processes. The papers in this volume examine some of the attributes of the globalization phenomenon in order that we might better understand its impact on our lives and its implications for public policy.

National Responses

Although globalization is often described an homogenizing force, there are very significant differences in the way nations and units within nations have responded to it, or are capable of responding to it. Chapters 1 and 2 explore how current corporate and government policy has evolved in the global context in which they must now operate.

Taizo Yakushiji, in his paper, "National Sovereignty and Firms: Lessons from the Past and Japan's Future Problems" notes that patterns of globalized corporate activity have decidedly different national characteristics which have their antecedents in historically unique government-firm relationships. In Europe, firms have traditionally "grown in parallel with the state's position in international politics." Thus, for example, the British East India Company, the Netherlands's East India Company and, more recently, the German Kartels of this century, all evolved in virtual lockstep with "their government's political leadership, both in terms of economic diplomacy and national security." Given such roots, Yakushiji suggests that European firms continue to monitor and respond to their respective governments' global strategy, leading to paternalistic relationships between the companies and their respective states.

In America, on the other hand, Yakushiji describes a relationship between the state and the private sector, both past and present, that is much more strained. He notes that "in general, the American federal government has been antagonistic towards powerful and monopolistic companies"; an attitude well-buttressed by the application of strong competition and anti-trust legislation. The US government has not been single-minded, however, in its hostility towards the private sector. Yakushiji proposes that where questions of national security and industrial competitiveness are concerned "it has been well disposed toward assisting fledging or declining industries facing foreign competition," as evident in its bailout of Chrysler and support of US high technology firms vis-à-vis their Japanese counterparts.

Contrary to the implications of the term "Japan Inc.," the author describes a relationship in which the objectives and strategies of Japan's private and public sectors are often at odds. He notes that although the state frequently assumes the role of referee and will back fledgling companies, when companies become more competitive they also become more independent from government.

Yakushiji speculates that today, many of Japan's largest globalized firms are, in fact, apolitical because international issues of importance to them play such a small part in the domestic political arena. Furthermore, he suggests that Japanese firms need to

develop their own understanding of the political environment (and concomitant investment and trade strategies) in which their global corporate activity is taking place, because reorientation of domestic politics to pay greater attention to international affairs is a development not likely to be on the immediate horizon.

Richard Simeon, too, writes that the nature of a nation's response to the forces of globalization depends on a number of factors that are particular to that nation, such as position in the global economy, industrial structure, institutional framework and the play of political forces. In his paper, "Canadian Responses to Globalization," Simeon contends that Canadian policy adjustments in the face of globalization are constrained by a lack of "social, organizational and institutional requisites" necessary for government to chart a coherent national policy. He describes a unenviable mix of a divided business class, a fragmented labour movement, a social structure most notable by its regional and linguistic divisions, and a decentralized political system, which virtually preclude the development of anything approaching a national consensus and leave the country "with relatively little capacity to define or choose [its] own path."

Simeon observes that in the last decade, Canadian industrial policy has opted towards a market model (exemplified best by free trade, privatization, tax reform etc), as a response to the challenges of globalization. He suggests that this route has been followed more by "default" than by "explicit choice." The model has been chosen simply "because none of the alternatives are persuasive or feasible."

The success or failure of such a policy package to enhance Canadian competitiveness in a global economy remains to be seen, but Simeon suggests the further integration of the Canadian economy with that of the US will also further constrain its policy autonomy.

Immigrants and Foreign Workers

Globalization, of course, has much to do with the goods and services of the marketplace. But the global marketplace is driven by people—producers, service providers and consumers—and people are increasingly moving around the world to work and live in nations other than those in which they were born. Immigration and the use of foreign labour have become important public policy issues in many nations. In the case of Japan and Canada, the debate over this issue has all too often been controversial and divisive. The third and fourth chapters of this volume examine some of the issues associated with migration of people and the workplace.

Haruo Shimada writes that although globalization has led to significant liberalization of Japan's markets for foreign goods, services and finance, its labour markets are still extremely restrictive with regard to foreign labour. This is particularly true with regard to unskilled workers.

This tightness does not reflect, however, an absence of need for foreign labour. In his paper, "Problems of Foreign Workers: A Japanese Perspective on the Challenge of a Borderless Society," Shimada suggests that if Japan is to rise adequately to the challenge of a global economy it must increase its usage of skilled foreign labour "by gathering talented people from all over the world and placing them at the centre of its business activities." He observes that there is broad support for this type of change, as evident by various modifications to immigration policy and related laws and regulations.

However, Shimada also notes that Japan is facing an impending crisis with regard to unskilled foreign workers. He writes that there may be as many as 50,000 illegal entrants engaged in unauthorized work in Japan and, with the widening wage gap between Japan and neighbouring developing countries, this number is likely to increase. In the absence of mitigating policies, he worries that this situation will lead to "socially undesirable consequences in both a domestic and international context."

Shimada proposes large-scale education and training programs for foreign unskilled workers in Japan. These could involve vocational and technical training for up to 100,000-200,000 persons annually. Such training would be a prerequisite for foreign labour to work in Japan. He concedes that this would be tremendously expensive but notes that the percentage of Japan's GNP devoted to foreign aid is low compared to most other developed nations and such a program, which he describes as "a domestic foreign aid program," would be a way in which it might better fulfil its international obligations.

Shirley Seward and Marc Tremblay, in their paper, "Immigration, The Canadian Labour Force, and Structural Change," write of quite a different experience with regard to immigration than does Shimada. Unlike Japan, Canadian society has been built on waves of immigration, with annual intakes in the post-war period reaching as high as 200,000 people. The authors notes that immigration policy has always had a prominent economic foundation, particularly, in recent times, with respect to the role that immigration plays in the labour market. "Successive Canadian governments, to a greater or lesser extent, have viewed immigration as a source of labour force growth and as one mechanism for dealing with labour market needs, such as shortages of labour in particular occupations and industries." Previous research in this area has suggested that immigrants respond to the demands of changing industrial structure and tend to be concentrated in expanding industries.

Based on the 1986 census, Seward and Tremblay re-examine this hypothesis. They note a number of important changes that have taken place in the domestic and international economy, as well as in the nature of Canadian immigration policy, that challenge the assumption that immigrants enter the labour force in industries where the "need is greatest" and by doing so act as "agents of social change in the receiving society." Prominent among these are the rapid transition to a service economy, the declining importance of secondary and primary industry, and the increasing numbers of non-economic immigrants (i.e., refugee and family reunification classes).

They report that "the assumptions often made regarding the role of immigrants in the labour force may be over-stated." In particular, the participation in the labour force of immigrant women is occurring increasingly in declining industries. Given the

importance of having a flexible and adaptive labour force, such a trend raises important policy considerations for governments. Canadian governments might, for example, consider an immigration policy that is "more selective in admitting immigrants who are suited to the changing labour market." The authors note that some attempt has been made to do this in recent years, but point out that family unification obligations and international refugee pressures make it very difficult to implement a highly selective immigration policy. Instead, they point to the need for labour adjustment programs (language training, skills updating etc) that would enhance immigrant "mobility and effectiveness in the labour force."

Private Enterprise

Much of the momentum towards global market integration is being spearheaded by the corporate sector. An ever-increasing amount of international commerce is conducted by firms who think in terms of global markets, production, sourcing and networks. Take the automobile industry for example. Japanese and American firms are now joining hands to produce a car for a global market that has its constituent parts manufactured in plants worldwide from raw materials similarly sourced. However, despite the so-called "apolitical" nature of globalized business, there are important variations in corporate form and practice that have their origins in national uniqueness. Chapters five and six describe some of the aspects of global corporate activity emanating from Japan and Canada.

Guy Steed and Geraldine Kenney-Wallace describe an environment in which Canadian-based enterprises, long prosperous as a result of abundant natural resource endowments, are increasingly challenged and threatened by the dictates of the new global market place. The authors begin their paper entitled, "Present Conditions of Globalized Private Enterprise in Canada," by noting the traditionally high degree of foreign ownership of Canadian industry has been further reinforced by the recent trend of "foreign takeover of enterprising, mid-sized, knowledge-intensive, Canadian-owned firms" (threshold firms). They note that where Canadian-owned multi-national enterprises do exist, they tend to be relatively small and, for the most part, concentrated in resource sectors of the economy.

Central to Steed and Kenney-Wallace's understanding of globalization and private enterprise is the notion that "science and technology is at the forefront in driving trends towards globalization and in many corporate strategies for adjustment to new global conditions." They advocate strongly that science and technology must also be key components of any Canadian strategy to compete in a global market place and list a number of areas in which industry and government alike must take action. Low levels of industrial research and development (ironically, particularly low in the resource sectors where Canada would appear to have a comparative advantage), is one area of concern. Another is the failure of the industrial sector to adequately manage technology. Steed and Kenney-Wallace write that "Canada's most immediate science and technology

problems are the inability of many of its managers to develop and apply technology to make a profit, the low rank within managerial hierarchies for those with technological expertise and the relatively low rewards for such expertise."

On the positive side of the ledger the authors point to recent and innovative efforts to enhance the technological inputs into Canadian industry. These include government and industry initiatives to foster and sustain university-industry links, the formation of industrial R&D consortia, the establishment of sectoral targets for R&D, and a heightened government attention to trade-related issues such as intellectual property and R&D subsidies.

The authors conclude, that although Canada is addressing many of its science and technology concerns, there is no room for complacency. They stress that additional means to sustain Canadian competitiveness must be sought. One such opportunity is international cooperation, where complementary strengths in science and technology can benefit participating nations.

In his paper on "The Globalization of Japanese Enterprises," Ken-ichi Imai describes the evolution of the globalized activities of Japanese enterprises. Central to the current pattern of Japanese firms is "increasing foreign direct investment." Imai explains that the purpose of this investment differs according to location. In North America and Europe the major purposes are to gain "access to promising markets," "strengthen the accessibility to information" and "increase the ability to respond to consumers' needs." In Asia, the purpose of investment is more directly related to the objective of reducing labour costs.

There can be no doubt that Japan's managerial and industrial system has created an export system of unprecedented success. Imai contends that a critical base for this success is the international network strategy adopted by Japanese firms. Unlike the global strategy of American firms which "is to think of the world as one market" and to attempt to "achieve centralized coordination between constituent organizations," or multi-domestic strategies of pursuing separate strategies in each market, globalized Japanese enterprises operate within a network characterized by what Imai describes as "flexible specialization." Local units within such as system are highly autonomous, but the interdependency of the network as a whole is retained.

Flexible specialization, in which firms "market their products according to the principle of producing the necessary volume just in time," requires close linkages between producers, suppliers and markets and requires indepth "on the spot information." The types of technological linkages, inter-organizational linkages and contractual arrangements to be found within the Japanese enterprise's globalized network depends, however, on the nature of the industry. The author cites case studies of high tech industries that show how the network revolves around a set of core functions that should take place in Japan, others that should take place in neighbouring countries to allow for ease of transportation and communications, and others that could take place in any location. The contractual arrangements that define a globalized network might include outright purchases, mergers, joint ventures, industrial collaboration, sub-contracting, franchising

and licensing. In designing a globalized network, the appropriate arrangement chosen depends on the ability of each to deal with a set of "key strategic issues."

International Cooperation

In an environment characterized by global markets, transborder pollution and large-scale migration of people in search of a better life, there is a compelling need for enhanced international cooperation. No nation can successfully "go it alone." Our collective security, most broadly defined, will increasingly depend on the ability of nations, and people within those nations, to seek amicable ways to resolve shared problems. In the final two chapters of this volume, the authors examine some of the dimensions that define the interdependent relations of the family of nations.

Isamu Miyazaki notes in his paper, "Economic Issues Shared by Japan and Canada and Economic Structural Adjustment," that "despite the relatively small scale of trade between Japan and Canada, the two (countries) have an important cooperative role to play in the world." Both should bolster the multilateral trading system by opening domestic markets, by supporting the Uruguay Round of the GATT negotiations and by preventing "the United States from turning towards protectionism." Imai, in a comment very much in line with propositions made by Steed and Kenney-Wallace, also suggests that Canada and Japan would both greatly benefit from a "strengthened system of mutual cooperation in the areas of technical research, development and application." Finally, the author writes that both countries have a global responsibility, not to mention self-interest, to protect the environment and promote economic growth and development in the developing countries in the world.

To enable themselves to address effectively these common issues, Miyazaki states that Canada and Japan must deal with basic economic structural issues. In the case of Japan, the main issue is its massive trade surplus. He advocates the further relaxation of import restrictions, lowering of tariffs and the elimination of non-tariff barriers. He notes that much has been accomplished with regard to goal of stimulating domestic demand. In 1988, domestic demand contributed 7.6 percent to real GNP growth in Japan, whereas exports brought growth down by 1.0 percent.

However, Miyazaki, and many other Japanese as well, comment that Japan's overall wealth is not adequately reflected in the quality of life enjoyed by its citizens. In such areas as housing conditions, averaging working hours and cost of living Japan lags considerably behind its European and North American counterparts.

With regard to the development of regional trading blocs, Miyazaki writes that the religious, racial and cultural diversity found in the Asia Pacific region presents very significant obstacles to the development of a yen-centred bloc. He also voices the often-heard Japanese concern with regard to European and North American integration. That is: Japan endorses such initiatives providing that they enhance free trade, but worries that "regionalism and chauvinism might arise in the process."

Ted English, in his paper entitled, "International Economic Integration and National Policy Diversity," also focuses much of his discussion on the question of international cooperation. He begins by examining the tension that frequently surfaces between a nation's efforts to promote international cooperation through the liberalization of trade, and efforts to define and protect "legitimate differences in the degree and form of social and economic intervention by government..." He notes that these differences generally revolve around notions of "quality of life" and find their expression in such policy areas human resource development, natural resource development, market structure, national security, cultural identity, economic equity, or in specific political structures and processes.

English writes that the higher levels of government intervention that flow from such domestic policies have, in fact, precipitated new approaches to trade liberalization, including regional trade agreements and codes governing non-tariff practices. He observes that "efforts to harmonize or promote convergence of national policies to date have resulted in a mix of multilateral, regional and bilateral arrangements..."

In the Pacific region, there have been a number of proposals for "comprehensive economic cooperation or integration." The most recent of these is the initiative launched by Australia's Prime Minister Hawke, dubbed Asia Pacific Economic Cooperation or APEC. APEC is an intergovernmental forum involving economic and foreign ministers from 12 Asia Pacific nations. The author notes that APEC has attempted to forge a "Pacific package" to put forward to the final GATT meeting of the Uruguay Round. It has also established a longer-term research agenda on matters other than trade negotiations (i.e., technology exchange, human resource development, and sustainable management and development of natural resources).

It remains to be seen the extent to which APEC will be able to bridge the regional diversity noted by Miyazaki and others, and provide a mechanisms for governments to "reconcile differences related to stages of development and social policy preferences."

The papers in this volume illustrate that globalization is a multi-dimensional phenomenon. They do not, however, purport to examine all aspects of globalization. For example, they do not specifically address the challenge presented by the frightening degradation of the global commons, or the increasingly profound impact of globalized financial markets, or the consequences for local cultures of the "information age" and the virtual instantaneous transmission of ideas and information throughout the "global village." Clearly much more research is required as global linkages and interdependencies deepen. It is particularly important that cross-cultural dialogue, such as the meeting from which this volume has emerged, be undertaken. The viability of a cooperative international regime depends greatly on the ability of individuals and nations to understand and appreciate differing cultures, aspirations and attitudes.

National Sovereignty and Firms: Lessons from the Past and Japan's Future Problems

Taizo Yakushiji
Professor
Saitama University

Introduction

Much of the current discussion about interdependence deals more with conflict than with cooperation. Interdependence has long been regarded as a "safety valve" to moderate potential military clashes among rival nations but, in the current context of international trade, interdependence often implies entrenched relations among nation-states, from which escape is quite difficult. Trade friction is the most salient illustration of this type of relationship. The U.S. and Japan are mutually entrenched in various ways, including the U.S.-Japan Security Treaty, but this entrenchment is most notably in the area of external trade. For example, although Japan's video tape recorders are dependent on the U.S. market, and U.S. computers rely on Japanese chips, the two nations have been quarrelling over semiconductor trade.

Perhaps the conflictual aspect of interdependence stems from the erroneous view that economic globalization makes it possible for all nation-states and firms to function more or less equally, with similar behaviourial codes. However, it is my opinion that the pattern of relationships between governments and firms is determined by historical conditions, and that the behaviour of nation-states is confined by the international political system, particularly the hegemonic structure.

Bearing in mind these points, this short paper will explore afresh the European, American and Japanese patterns of the government-firm relationship.

The European Pattern

An historical review of the relationship between European states and firms reveals a characteristic pattern. The 16th century Elizabethan government, as well as the Spanish and Dutch governments of that time, was largely dependent on tariff income from private companies, which in turn accumulated great sums of money by privateering foreign commercial ships. In return for this revenue, monarchs issued licences to the owners of these ships to pursue "triangular trade", which operated by selling African slaves to the colonial settlers and using the profits to purchase black pepper and other precious goods to carry back home.

In this period, although private companies were backed by the government, they enjoyed political independence from it. Later, these state-backed companies became the first state-owned trading companies with Britain's East India Company formed in 1600 and the Netherlands' East India Company, which was led by a business consortium including government and regional trade associations, formed in 1603.

Upon the inception of the Pax-Britannica regime after the Napoleonic Wars (1803-1815), British trading companies and manufacturers globalized and sold superior British goods worldwide. In the late 19th century, latecomer Germany attained national unification based on the tariff alliance ("Zollverein") among the Laender and emulated the British method of world trade in order to finance food imports from Russia, which were necessary to support the population explosion. Germany then became, consciously or unconsciously, a formidable challenger to the British hegemony in world trade, leading to the eruption of the First World War. In preparation for war, the German government forced manufacturing companies to form powerful "Kartels" which were placed under state control. (The most conspicuous example of German Kartels was Nazi Germany's I.G. Faben.)

As these historical examples show, many giant European firms evolved in close relationship to their governments' political leadership, both in terms of economic diplomacy and national security. European firms have subsequently constantly monitored and responded to government global strategy. In this respect European firms differ markedly from their American and Japanese counterparts.

The American Pattern

The United States was considerably weaker in industrial technology than European countries in the early 19th century. As a typically underdeveloped country, it imported advanced European technologies, especially weapons technology, which at that time relied on interchangeability with civilian machines and parts. Since the U.S. fought two wars with Britain (the American Revolutionary War from 1775-1783, and the Anglo-British War in 1812), the American founding fathers asked for this technological assistance from their long-standing ally, France. With France's assistance, the U.S. built two French-style arsenals; one in Harper's Ferry, Virginia, and one in Springfield,

Massachusetts. Through these arsenals, interchangeable machine technologies spread to private firms, and the American mass production system blossomed in the railroad, steel, bicycle and automobile industries.

The American military-industrial complex is largely the result of the migration of many army engineers into private business. However, this does not necessarily mean that American private firms are state-backed. In fact, the relationship between government and industry in the U.S. was one of constant strain until the 1970s, at which time the hollowing out of America's industrial structure became apparent. For example, in the late 19th century, the American railroad industry faced the hostility of Congress and was severely regulated through the enactment of the Sherman Antitrust Act of 1890.

In general, the American federal government has been antagonistic toward powerful and monopolistic companies, but well disposed toward assisting fledgling or declining industries facing foreign competition. For example, during the First World War the federal government confiscated all German chemical patents filed in the United States and gave them to American chemical companies at no cost. And, in 1920, for reasons of national security, President Wilson prohibited General Electric from selling its microwave technology to the British Marconi Company and created the state-backed RCA in order to eradicate British influence in the wireless telephone business.

The above examples support the notion that the relationship between government and firms in the U.S. is generally strained, except in the policy areas of national security and industrial competitiveness. The Chrysler bailout and current U.S.-Japanese friction in the area of high technology further illustrate this point.

The Japanese Pattern

Excluding pre-war, state-owned companies such as the Yawata Iron Works and the National Railways, and post-war, semi-state-owned companies like Nippon Telephone and Telegraph (before its privatization), the formal relationship between government and private companies in Japan began when the Meiji government sold its bankrupt mines. Like the United States, Japan, as a relative latecomer to industrialization, tried to assimilate advanced European industrial technologies, mainly from Britain, but also from other European countries. For example, British engineers built Japan's early railways and telecommunication system, Dutch engineers built its road and canal systems, and the French assisted in establishing the silk weaving industry.

Despite the unquestionable success of Japanese modernization with the help of foreign engineers, the Meiji government suffered serious failures in mining. The government saw mining as Japan's most important export industry (Japanese copper and silver had enjoyed a world-class reputation since the 17th century), but despite huge government investment and assistance by French, German and American mining engineers, yields of coal, copper, silver and gold did not attain satisfactory levels. To reduce its budget deficit, the government decided to sell almost all of its state-owned

mines to private conglomerate companies, such as the Furukawa Group (which bought the Ashio Copper Mine), the Mitsubishi Group (which bought the Takashima Coal Mine, the Ikuno Silver Mine and the Sado Coal Mine), and the Mitsui Group (which bought the Miike Coal Mine).

These giant conglomerate groups grew as Japanese modernization progressed, but the relationship between government and the conglomerates was not as close as that between the Kartels and the government in Germany. Japanese conglomerates rid themselves of all financially-burdensome foreign engineers, particularly the British who received extremely high salaries, and hired American-trained Japanese engineers in their place. Some conglomerates later initiated joint ventures with American and German companies. For example, Furukawa and Siemens established Fuji Electric; American AT&T created a Japanese subsidiary, NEC; and General Electric participated in a new company called Tokyo Electric, the forerunner of today's Toshiba Electric.

Japan's shift from British to American assistance helped to create a Japanese management system which was relatively independent of government control and influence. For example, when the Ministry of Army and the Ministry of Commerce and Industry (the predecessor of today's MITI) requested in the 1930s that Mitsubishi Heavy Industry (which grew out of Mitsubishi's purchase of the Meiji government's Nagasaki Shipyard) and Gisuke Ayukawa's Nissan Motors produce vehicles in amounts specified by the military government, the corporations strongly opposed the request. The government then asked Toyoda Loom Manufacturing to enter into the car manufacturing business. In the 1950s, when MITI launched its People's Car Plan (the Japanese version of Nazi Germany's Volkswagen), almost all car manufacturers, including Toyota, formed a strong coalition to oppose the state-sponsored plan. Ironically, these Japanese manufacturers benefited from the 1956, MITI-sponsored Law to Promote the Machinery Industry, designed to modernize the auto parts supply industry.

These illustrations suggest that the term "Japan, Inc." needs careful interpretation. If taken to mean that Japanese firms are fully backed by or dependent on the state, the phrase is totally misleading. If, on the other hand, it is interpreted as meaning that the government willingly assumes the role of referee to help create a competitive situation in which sole monopoly was rejected, then the phrase conjures the essence of the unique relationship between the Japanese government and private firms.

In summary, we may extract three salient patterns of relationships between governments and firms. In the European pattern, private companies have grown in parallel with the state's position in international politics. British companies globalized as Britain became a hegemonic state; Dutch companies globalized as the Netherlands became a suzerain sea power with overseas colonies; German companies globalized when Germany tried to emulate British precedent; and French companies semi-globalized when France attempted to maintain quasi-hegemony on the European continent. Thus European companies grew by keeping abreast of national sovereignty in international politics, and the state tended to act paternalistically when the companies were threatened by international competition.

In the American pattern, private companies were backed by the state at the infant stage, but opted for independence from state influence as they became powerful and globalized. American pluralism accelerated the separation between government and private companies, but government protection is revived when industrial decline or hollowing out becomes evident. Private companies are also under government supervision if their business activities affect national security. In its current form, this special relationship is rooted in the creation of the Office of Scientific Research and Development (OSRD) during the Second World War, when private companies were mobilized for military research and production. Cold War politics in the post-war era have strengthened this particular form of government control of industry in the U.S.

The government-firm relationship in Japan is one of government backing for fledgling companies, which decreases as the firms work towards independence from government. In the post-Second World War era, the key national issue was economic rehabilitation and government intervened in private enterprises, both directly and indirectly. The industrial trade association created during the Second World War survived as the post-war "Keidanren" and became a channel for government industrial guidance. Through the Keidanren and its umbrella organizations, the post-war government was successful in instituting economic recovery plans. Since Japan has now attained unprecedented success in economic development, private companies have gained world competitiveness and thus have become globalized.

Japan's Future Problems

The problem with the Japanese system is political. The Occupation Army democratized Japanese politics and, since 1955, the Liberal Democratic Party (LDP), a coalition party of five different factions, has governed Japan. During its long reign, the LDP has become a "catch-all" party absorbing political requests from a variety of interest groups, including private companies, as indicated by the LDP's strength in urban constituencies.

Opposition parties have, on the other hand, become ideologically oriented. The fact that the LDP has ruled without a pause in Japanese post-war politics means that Japan has never experienced a reshuffling of political parties, and has never deviated from its internally-oriented politics, or its post-war economic rehabilitation regime. Politicians can thus gain political support if they devote themselves to domestic grassroots issues, including economic politics, but cannot gain support if they stress international issues. The result is that like a kite which has lost its string, Japanese global companies are becoming apolitical and hence are regarded as "economic animals." This is solely due to the absence of political leadership at home vis-à-vis international affairs.

Since political reforms take a long time, the best solution might be for Japanese companies to pursue their own political enlightenment. Technology has recently become increasingly politicized, not only in the area of security but also in the civilian arena, with Japanese world competitiveness based on its superior production technology. Technology thus serves as a common denominator by which Japanese companies can bridge

economic and political concerns in the global political economy. The controversy over the production of the FSX jet fighter, and recent nationalistically motivated political harassment by governments in North America and Europe in response to Japanese direct investment, suggest that Japanese global companies which lack an understanding of political strategy will lose future business opportunities. This is a more serious problem than that associated with political instability; in fact, more problems are likely to arise from within politically stable regions.

Traditionally, Japanese companies have sent their young personnel to foreign business schools to learn how to find business opportunities on foreign soil. The time has now come for the companies to adopt a new strategy, and start sending these young people to political science or international relations schools.

Canadian Responses to Globalization

Richard Simeon
Queen's University

The globalization of business is a generalized, world-wide phenomenon. But its form and impact varies dramatically from country to country. These variations, along with the political and policy responses to them, depend on a number of factors. Most basically, they depend on the country's position in the global economy: its size, openness, resource endowments, political and military influence, and its historic trading patterns. Second, they depend on the country's industrial structure, including its industrial mix and patterns of ownership, concentration, regional variations and the like. Third, they depend on its institutional framework and the play of political forces, notably the relative balance between capital and labour.

This paper will examine the interplay of these forces in a very preliminary attempt to come to grips with the impact of globalization in Canada and to understand the policy responses to it. This is necessarily a highly tentative exercise, for although we have a rich literature on state, business and industrial policy in the history of Canadian economic development, we are only just beginning to come to grips with globalization and its consequences. Indeed, I will argue that a number of factors render Canada ill-equipped to undertake the adjustments that globalization seems to require and, in particular, that any form of coherent, planned "national" response to these challenges is unlikely. Indeed, the Canadian political system seems better designed to generate ad hoc and contradictory policy responses and to impede adjustment, than it does to plan change and facilitate adjustment. In this, of course, Canada is not alone.

Canada in the World Economy

I will only briefly sketch the most salient elements of Canada's position in the global economy. Canada is a relatively small, open, price-taking economy. Like other such countries, Canada must adapt and react to changes in the global market-place; it does not define or shape that market-place. While it is a member of the Group of Seven largest capitalist industrial countries, it is not among the most powerful. Its ability to influence global events depends greatly on its ability to cooperate with other nations in multilateral arenas.

As an open economy, Canada is heavily dependent on external trade. Exports of service and merchandise total about 30 percent of the total Canadian product. This trade is highly dependent on a single partner—the United States. In recent years the U.S. market has accounted for 70 to 80 percent of all Canadian exports and is the source of about 70 percent of its imports. Despite attempts to diversify trading relationships—such as the attempt to build tighter links with the European community and, more recently, to stimulate trade with the Pacific Rim—the emphasis on Canada-U.S. trade has increased significantly and with the Canada-U.S. Free Trade Agreement in place, it is not likely to decline. Some 90 percent of all Ontario's external trade is with the United States. In this sense, it has been observed that Canada's largest and most industrialized province is more tightly integrated with the U.S. economy than is the state of California. Japan is now Canada's second most important trading partner.

Canada's external trade is also highly concentrated in a number of sectors. More than one-half is accounted for by raw or semi-processed natural resources. As a result of the Canada-U.S. Autopact of 1965, another one-quarter is accounted for by trade in automobiles and parts. Other manufactured goods are far less prominent. Trade with Japan and Europe also reflects an historic Canadian pattern, despite many efforts to alter it, of a high concentration of natural resource and raw materials exports and highly manufactured imports.

The differences in resource endowments and industrial structure from province to province also mean that Canadian provinces are inserted into the global and North American economy in different ways. Thus, Ontario's trade is dominated by the North American trade in automobiles; Quebec has developed tight linkages with the United States through hydro-electricity exports; Alberta's economic well-being depends fundamentally on the global price of energy; and Saskatchewan's on the global demand for wheat and the results of the fierce agricultural subsidy battles between the U.S. and the EEC.

Canada's strategy in world trade has undergone important shifts. From the 1870s until the Second World War, the "National Policy" and associated measures stressed rapid development of natural resources and agriculture combined with the stimulation of a domestic manufacturing industry, largely located in central Canada, through high tariffs. Throughout this period, while trade with the United States grew—and free trade continued to be debated—policy focused on maintaining traditional British markets through imperial preferences. This pattern of industrial development through tariff protection shifted after the Second World War, as Canada played a leading role in the

development of freer world trade and international institutions to promote it. This internationalist posture, along with steadily declining tariff rates, was accompanied by increased linkages with the United States, institutionalized in measures such as the Autopact and the Defence Production Sharing Agreement and by political measures such as shared North American air defence. The Canada-U.S. Free Trade Agreement is the natural extension of this trajectory.

Thus, Canadian dependence on trade, and its tight integration with a single partner, fundamentally shapes and constrains Canadian trade policy.

Canadian Industrial Structure

The nature and implications of Canadian industrial structure for Canada's global competitiveness has been much debated. In many ways Canadian industrial structure has much in common with other advanced industrial states: relatively high income levels, declining shares of employment and production arising from primary industries and rising shares from the service industries, increasng emphasis on high technology, and so on. Yet, especially among left-oriented political economists, there is a pervasive sense that Canadian industrial structure is somehow warped, incomplete or truncated. In the 1970s there was a wave of studies which used the insights of the "dependency school" to argue that the Canadian economy had much in common with Latin American economies, whose structure was fundamentally determined by the extension of metropolitan capitalist interests, usually mediated by "comprador" economic and political elites within the subordinate country. Such extreme interpretations were difficult to reconcile with the high levels of income and growth in Canada. More recent political economy interpretations have seen Canada as an "intermediate economic power," or as a more specialized unit within the larger group of advanced capitalist countries.

Those who see the Canadian economy as relatively underdeveloped point to a number of indicators, including the relatively high proportion of the Canadian product still accounted for by natural resources and the low proportion of Canadian exports which consist of sophisticated manufactures. Special attention has also been given to the very high levels of foreign ownership of Canadian industries, especially in sectors such as energy and minerals. During the 1970s this became a major political issue and a number of counteracting measures were undertaken, including the increased use of state or mixed enterprise, the establishment of a Foreign Investment Review Board, and the aggressive "Canadianization" elements of the 1980 National Energy Program. These and other measures significantly reduced levels of foreign ownership.

However, there are indications that globalization may reverse this new trend. Indeed, the incumbent government has dismantled or modified many of these nationalist policies and has aggressively sought out new foreign investment. Currency fluctuations mean that many Canadian firms are undervalued by international standards and thus attractive targets for foreign take-overs. Sale to, or merger with, larger foreign firms is

likely to become persuasive for Canadian firms which lack the size and sophistication to penetrate global markets on their own. Thus the foreign ownership debate has recently revived and is likely to intensify.

Another recent source of concern has been Canada's "technological dependency"; that is, its high reliance on foreign technology and the lack of a strong domestic base for technological innovation. Attention has been focused on the lack of investment in technological innovation by Canadian firms and on the comparatively low levels of public investment in research and development. This too has provoked much debate—ranging from the argument that Canadian global competitiveness requires "technological sovereignty," to the argument that technology is just another input which can be purchased like any other on world markets.

The final characteristic of the Canadian economy to underline is its great regional variations, both in industrial structure and in levels of economic well-being. These are long-standing historic patterns. Public policy in the form of "equalization payments," regionally sensitive unemployment insurance, and regional development spending have done much to reduce disparities in incomes, but have done little to bring about structural change in the weaker regional economies. Furthermore, there appear to be declining economic linkages within the Canadian economy. This is the obverse of the increased north-south integration and is likely to be further stimulated by the free trade agreement. If it is true that there is declining economic interdependence among the regions, then each is more likely to follow its own economic growth trajectory, with relatively little spill-over to other regions. This is suggested by the fact that the Canadian recovery from the 1981-82 recession was accompanied by larger inter-regional time lags than previously experienced.

Canada's industrial structure gives rise to a number of policy consequences. First, the disaggregation within the Canadian economy means that the burden of political integration is increasing carried out by a number of public policies, such as unemployment insurance or medicare, which are themselves under strain from pressures for restraint. Second, it has become increasingly difficult to develop macro-economic policies which simultaneously meet the needs of all regions. For example, it is currently argued that while inflationary tendencies, and the need for tight monetary and fiscal policy to contain them, are generated by the overheating of the Ontario economy, the costs of those policies are being borne by weaker regions for which a different policy mix is indicated.

The implication of these characteristics of both Canada's position in the global economy and its domestic industrial structure, is that Canada is in the class of "economically vulnerable" countries, highly subject to global economic forces over which they have very little control.

The key question this raises is: What is the appropriate strategy for such a country to pursue, given the globalization of the world economy, and how should such a strategy be conducted given the constraints imposed by the global economy and by the mobility of capital and technology within it? There is, of course, an economic dimension to this question: What are the appropriate macro-economic policies, and what micro-economic policies can promote increased productivity, competitiveness and innovation? And there

is also a social policy dimension: How to best manage the domestic impacts—on employment, regional disparities, etc.—of the economic changes which are occurring, and how to secure consent and support for the necessary economic adjustments?

Francis Castles, in a comparison of the Scandinavian countries and Australia (perhaps the country whose trade and industrial structure make it the most like Canada), argues that there are two broad approaches. The first is to combine a highly flexible labour market and the promotion of economic adjustment with a very strong social safety net. This is the Scandinavian pattern. The second, on the Australian pattern, is to combine a protectionist tariff policy and a regulated, relatively rigid labour market, with a relatively weak social safety net. Castles argues that the former is much the most effective.

David Cameron and others make a parallel argument: that small, open economies like Canada face an imperative not only to develop a strong safety net to cushion against the vagaries of shifting trade patterns, but also to develop political mechanisms which are able to secure the cooperation of the major economic partners—business, labour and government—to moderate wage demands and to plan a coordinated national approach to the global market. In Cameron's model, this explains why countries like those in Scandinavia are characterized by strong corporatist, or tripartite decision-making mechanisms, by active labour market policies to promote adjustment, and by high levels of social spending. It could be argued that Canada generally followed the Australian pattern until the Second World War, but that it shifted—in the combination of internationalist trade policy and building the welfare state—closer to the Scandinavian model more recently. But Canada has not developed, in anything like the same degree, the tripartite policy-making processes characteristic—albeit in very different forms—in both Scandinavia and Australia.

One interpretation of the Canadian dilemma is that it faces the same imperatives which Cameron identifies, but that it lacks the political and social structures to develop them.

Barriers to Tripartism

Numerous factors help explain "why no corporatism in Canada." First is the organization of Canadian business. The Canadian business community, it has been argued, is not able to act in a coherent, unified way; nor is it closely identified with the Canadian national community, let alone with the Canadian national government. Sectoral fragmentation overlaps with, and reinforces, regional divisions. Much Canadian domestic political conflict has been explained in terms of the clashing interests of factions of Canadian capital, often allied with provincial governments. This regional fragmentation is accompanied by the high level of foreign ownership which, though declining recently, means that many leading Canadian firms are branch plants, lacking autonomy or close identification with the Canadian community and state. Canadian business often looks abroad not only for markets and investment, but also for corporate strategy and even

political guidance. Backward and forward linkages are more likely to be to parent firms outside Canada than to suppliers and markets in Canada.

Moreover, Canadian firms, themselves responding to the global challenges, are increasingly orienting their activities to investment and markets abroad, and are less firmly tied to the Canadian market. Again, this is part of a much larger phenomenon, not restricted to Canada, but it has particular effects here.

One consequence of these characteristics is that while there has been a proliferation of business interest groups in recent years, and while there have been attempts by business to create peak associations which can speak for business as a whole, business in Canada speaks with many voices. Neither long-established groups such as the Canadian Manufacturers Association or the Canadian Chambers of Commerce, nor newer ones, such as the Business Council on National Issues (BCNI), can speak for the whole business community.

The same is true for the Canadian labour movement. This is especially important, given that effective tripartite institutions appear to require a relatively strong labour movement which can speak on equal terms with capital. About 40 percent of the Canadian work-force is unionized—much higher than in the United States, but much less than in many European countries. The labour movement is fragmented among a very large number of separate unions, in most of which power tends to be concentrated at the local level. These unions are also divided along regional, sectoral and linguistic lines. There have also been divisions between domestic and international unions. The Canadian Labour Congress is the most important labour central, but it too has a number of rivals. Finally, in a relatively conservative and business-dominated culture, labour has tended to lack the legitimacy and the resources to act as full partners to business in those tripartite mechanisms which do exist.

Thus, neither business nor labour possess the organizational values and structures on which collaborative policy development could be based. Relations between labour and management are highly fragmented and decentralized, and have been focused primarily on traditional wage and working conditions issues, to the considerable exclusion of the large political and economic issues. The relationship has most commonly been adversarial, with each side concentrating on protecting its own short-term interests.

To some degree, the pressures of globalization may be changing this pattern. The creation of the BCNI was noted above and there has been some parallel movement at the union level, as the CLC has increasingly addressed more global issues. The great national debate over the Canada-U.S. Free Trade Agreement, in which a united business community faced a united labour movement, was a strong catalyst to this kind of reorientation.

Hence, Canada has not developed the elaborate and institutionalized mechanisms for collaboration and domestic consensus-building characteristic of other, similarly-situated countries.

Political and institutional factors also inhibit the development of these kinds of planning mechanisms. Canada shares, with some modifications, in the general North

American culture of liberal individualism and suspicion of collective action, especially in the economic sphere. Its political mechanisms are more adversarial than consensual. Its integration with the United States ensures that, with important variations, the country shares the "business culture" dominant in the United States. It is perhaps significant that it is in Quebec, drawing on a different cultural tradition, that we see patterns of business organization and tripartite consultation, reminiscent of some other countries. There we find a self-conscious partnership between business and state, which does not exist in other parts of the country and which Tom Courchene has aptly named "market nationalism."

Regional and linguistic divisions also affect the politics of industrial policy in many ways. Differing regional economic interests mean that it has been very difficult to develop "national" industrial strategies which meet the interests of all and which are able to bridge the differences between them. Much economic policy has been focused on alleviating regional disparities by compensating have-not areas. Although this commitment is now enshrined in the Canadian constitution, many observers feel that it is in considerable tension with more market-oriented adjustment policies. More generally, language and regional divisions have meant that Canadian politics has, in recent years, been greatly preoccupied with national "unity" and managing its internal differences. It has, therefore, had less energy and resources to devote to considering Canada's role in the outside world. Reconciling the territorial differences associated with region and language has predominated over the reconciliation of differences between capital and labour.

Canada's relatively decentralized federal institutions reinforce these preoccupations. The instruments of industrial policy and adjustment are shared between the two orders of government. Indeed, some of the most important areas for adjustment, such as education, are wholly or primarily within provincial jurisdiction. The high degree of interdependence among governments places a strong premium on securing intergovernmental coordination, in which the interests at the table, both institutional and substantive, are often in conflict. This pattern tends to reinforce the Canadian preoccupation with issues of regional distribution and to reduce policy flexibility and innovation.

It also has two other consequences. On the one hand, it results in a federal government for which the political imperative is to act as a balance wheel among competing regional interests. Its policy innovation is constrained not only by limited resources or jurisdiction, but also by the political constraints of regional divisions. On the other hand, it has led Canadian provinces to undertake ambitious economic development activities of their own. "Province-building" was especially important through the 1970s, as resource-producing provinces sought to exploit rising commodity prices to secure economic diversification. It has been less prominent in the 1980s as the terms of trade between manufacturing and resources has shifted once again, and these same provinces have become more concerned with securing support from Ottawa. The larger lesson, however, is that provincial industrial strategies may often have more clarity and coherence than federal policies and that the federal government faces more difficult political constraints. In addition, both the fragmentation of business and labour interests and the fragmentation of regional interests, creates a politics of "protection" in which the focus is

more often on securing positions which have already been attained, than on collaborating to bring about change.

Canadian Industrial Policies

Nevertheless, like all other advanced countries, Canada has experimented with a number of alternative industrial strategies and deployed a wide variety of policy instruments in order to achieve them.

As we have seen, the National Policy which prevailed until the 1940s, was supplanted by the internationalist policies of the post-war period. In the 1960s and 1970s, as the tariffs declined in importance as a policy instrument, and as problems like regional disparities came to dominate the political arena, both orders of government experimented with a vast array of new policy instruments: new public enterprise, especially at the provincial level; grants and subsidies; manpower training; research and development spending and the like. Indeed, the proliferation of activities in search of purpose resulted in a somewhat incoherent "blooming, buzzing confusion."

Two sets of themes predominated in this debate. The first was between those who emphasized market-oriented strategies, with limited government intervention, and those who argued that a small open economy like Canada could not simply depend on the vagaries of international forces, but must instead depend on a greater role for government. This latter group stressed the need for government promotion of research and development in order to achieve technological sovereignty, and on the need for strong regional policies. The former suggested that in the real world of politics, government industrial strategies inevitably acted to retard market adjustment and that the crucial need was for less intervention, less emphasis on distribution and the exposure of Canadian industry to the bracing winds of international competition.

The changing global environment, the perceived failure of many of the policy experiments of the previous decades and other factors all combined to discredit the more interventionist model in the eyes of governments and the business community in the 1980s. This rethinking was captured and summarized in the work of the 1985 *Royal Commission on the Economic Union and Canada's Development Prospects*, which urged a much stronger market-led adjustment process (combined with extensive adjustment assistance policies). The centre-piece of its recommendations was that Canada should seek to negotiate a free trade agreement with the United States. This proposal was embraced by the Progressive Conservative government elected in 1984 and, in 1988, a Free Trade Agreement was concluded. Thus Canadian policy, at the federal level and particularly within some of the provinces, has embraced the market model. It has found its expression as well, in moves towards privatization, tax reform and control of government expenditures. Nevertheless, political forces such as those previously described ensure that no "pure" policy model is likely to win out in the Canadian context and many elements of earlier industrial strategies remain.

The second axis of industrial policy has been to seek, at the national level, strategies which are internally unifying, rather than divisive. Again, such policies are hostage to the shifting winds of global markets. Thus, in 1981, the federal government articulated a model which was predicated on the expectation that the shift in the terms of trade to resources was likely to be permanent. Hence it sought to tie the Ontario manufacturing economy to the resource-producing regions, largely through Canadian sourcing for the inputs to large energy and mineral development. That policy was almost immediately the victim of the dramatic turndown of commodity prices.

Free trade represents another attempt at a unifying strategy since it is designed, in part, to put an end to the pattern in which resource producers were forced to buy manufactured goods from protected central Canadian industries, while they themselves were selling their product on volatile world markets or, in the case of energy, to subsidized Canadian markets. The logic of free trade in this sense is that regional conflict is reduced to the extent that each region is free to go its own way and is protected from interference by the central government or by dominant regions. Thus the market model is said both to enhance the competitiveness of Canadian industry and to reduce potential friction among the Canadian regions.

Conclusion

Whether or not the market model is successful either in helping Canada adapt to the global environment or in managing internal tensions, remains unclear. Persuasive criticisms can be made on both counts. As yet, however, neither the Liberal nor the New Democratic parties, nor the coalitions which they represent, have articulated persuasive alternative models which address the twin problems to which the market model, as represented primarily by free trade, is addressed. These are the need for a persuasive strategy to assure Canada's economic success in a global environment and to do so in ways which are integrative within Canada.

The concern of this paper, however, is more to explain why the market model now appears to be dominant. Two alternatives present themselves. The first is that it represents the success of a political coalition dominated by the Canadian business class, but supported by important regional elements. Thus the model can be seen as the outcome of a political struggle in which the forces of labour, and indeed the state, are relatively weak, and in which the interests of Canadian business are increasingly distanced from the interests of labour, or from any concept of a Canadian national interest.

An alternative explanation is that the Canadian political economy I have described is incapable of coming up with a coherent alternative. A number of factors support this interpretation. First, as a small, open economy, so tightly integrated with a dominant partner, the policy instruments available to the Canadian state are highly constrained. Free trade with the United States not only reflects this constraint, but also suggests that Canada has voluntarily accepted further constraints on its policy autonomy as a trade-off

for greater security of markets and greater reliance on market forces to bring about adjustment.

Second, Canada lacks the social, organizational and institutional requisites for the kinds of strategies pursued by other "economically vulnerable" states in the world economy. It has a fragmented, divided business class, which lacks the organizational capacity to develop a coherent, integrative sense of Canadian needs; a relatively weak and fragmented labour movement, more adapted to protecting its interests than acting as a full social and economic partner; a diverse and fragmented social structure, preoccupied with linguistic and regional divisions; and a political system in which authority is similarly shared and divided. In these circumstances, it might be argued that relations between government and the important social partners are necessarily likely to be ad hoc and limited; that it will fall to governments with limited capacity to mobilize consent to articulate national policies; and that in response to differing regional interests, there will be competitive industrial strategies. In this sense, the pattern I have described is arrived at less as a matter of explicit choice, or even the exercise of power by dominant groups, than it is arrived at by default. We choose it because none of the obvious alternatives is persuasive or feasible.

Canada has an enormous number of strengths as it faces the global challenges: civic stability, a well-educated population, a strong (though increasingly vulnerable) welfare state, an ethnically diverse population, and so on. I have not chosen to stress these. My suggestion is that even with these resources, our social and political fabric means that we face the challenge of the global environment with relatively little capacity to define or choose our own path.

Problems of Foreign Workers: A Japanese Perspective on the Challenge of a Borderless Society

Haruo Shimada
Professor
Keio University

Introduction

There is currently a great deal of talk in Japan about internationalization. The appreciation of the yen has meant corresponding gains in the Japanese economy, as evident in the rise of Japan's per capita income beyond that of the U.S. Privately held assets have also shown remarkable growth in line with increases in income and the rising cost of land, which has greatly increased nominal property values. As an illustration, the entire territory of the United States could now be purchased two and one half times over with the money it would take to purchase the Japanese islands once.

It is the first time in the long history of the Japanese race, which dates back several thousand years, that Japan has exercised such influence in the world economy. If calculated in dollars and converted into yen at the current exchange rate, Japan's GNP accounts for nearly 15 percent of the world's gross product.

It is natural for the world's resources to be pressing into the Japanese economy since it now possesses such a heavy concentration of economic opportunity. Rapid increases in imports have brought an influx of material goods, while foreign investment in Japan and overseas financing operations by Japanese enterprises have increased capital flows. Now, people are also about to stream into Japan in the form of foreign manpower.

In both principle and practice, Japan has made great strides in liberalizing markets for foreign materials and finance, but it still imposes very strict controls on foreign penetration of its manpower market. However, as Japan's domestic society internationalizes, there is a growing body of opinion that opportunities for foreign labour in Japan should be expanded. Labour-related government bureaus are advocating the modifica-

tion of laws and regulations in line with this opinion and preparations for change are under way.

The expansion of the labour market, however, has so far been limited to skilled foreign labour. There is less support for the liberalization of immigration policy governing unskilled labour. At best, opinion on this topic runs from cautious to negative. But while debate continues on the desirability of modifying the current immigration system to allow for more foreign labour, the presence of unskilled foreign labour in Japan is gradually increasing. Not surprisingly, most of these foreign labourers are illegally employed. The situation has already advanced beyond the point where the flow of foreign labour into Japan can be fully controlled by legal restrictions and there is a growing possibility that the current influx of foreign, unskilled labour may set off a chain reaction generating a series of social problems in Japan.

Rather than discussing the pros and cons of introducing foreign labour into Japan, however, this paper analyzes the potential long-term domestic problems resulting from its introduction and the international significance of Japan's foreign labour policies. It is clear that the trend toward internationalization, impelled by the momentum of Japan's increasingly borderless economy, has finally begun to affect the core of Japanese society.

Five Merits of Manpower Internationalization

As mentioned, Japan now plays an important role in the global economy and it is natural for the people of the world to want to share in its abundant economic opportunities. Simultaneously, the expansion of Japan's economy has widened the income gap between it and its neighbouring countries. Thus it is unavoidable that just as Japan accepted the internationalization of its productive processes, it must also accept the internationalization of manpower; or, in other words, the participation of foreign workers in its domestic economic activities.

The internationalization of manpower will benefit Japan in several ways, one of which is increased economic efficiency. As the Japanese economy grows and total demand increases, the supply of labour may not increase proportionately, resulting in a shortage in certain industrial fields, particularly in labour-intensive industries where productivity is low. In these sectors, labour shortages translate into increased labour costs, which can eventually lead to cost-push inflation. Under these circumstances, the introduction of inexpensive foreign labour would ease labour supply bottlenecks and raise economic efficiency.

A second benefit is a revitalization of the labour force. In industrial sectors where unskilled labour is hard to recruit, there is a growing trend towards the employment of aging workers, or toward dependence on poorly motivated workers. In comparison with the general Japanese labour force, foreign workers tend to be younger and many of them are highly motivated, as shown by the risks they face in simply coming to Japan to work. Accepting such workers will help to revitalize Japan's industrial labour force.

The quality of Japan's labour force would also be increased by the introduction of foreign workers with special skills or high levels of technical training in a broad vocational range including secretarial and managerial work, purchasing, sales, planning, international relations, engineering, research and education—virtually anyone whose advanced skills would contribute to the Japanese economy.

A fourth advantage of opening the Japanese labour market to foreign workers and promoting their access to it, is that Japan would protect itself from being isolated from the rest of the world, which would enhance general national security.

Finally, the participation of foreign labour in the Japanese market will also contribute to economic growth in other countries through the flow-back effect of foreign worker income. The effect will be even greater if work experience in Japan helps raise the level of foreign worker skills and capabilities which, upon return of the workers to their home countries, will aid economic development. In turn, this development will expand domestic markets and create greater opportunities for the absorption of Japanese exports.

Two Aspects of Immigration Control

Under the current Immigration Control Law, foreign nationals are not permitted to remain in Japan for the purpose of employment, with the exception of those authorized to stay for a fixed period of time, as controlled by the Law's visa provisions (Item X, Section 1, Article 4—see Table 1).

In Table 2, the two columns on the left indicate the number and occupation of persons who entered Japan for employment in 1982 and 1987. A total of 69,000 people entered Japan for employment in 1987, of which approximately 60,000 were singers, dancers, and other entertainers, most of whom were from the Philippines. Managers of foreign enterprises in Japan were the next largest group, accounting for about 6,000 entrants. The remainder entered under one of four other visa categories.

The two columns on the right of Table 2 indicate the number of these qualified foreigners who are now registered as foreign residents. As of 1986, the total number reached 30,645, of which 7,346 were in the entertainment business. However, the number of persons who qualify under the categories of business, special status and skilled labour are increasing.

Although the number of foreign entrants working in Japan has been increasing rapidly, their numbers are still relatively low. In particular, most foreign nationals enter Japan for entertainment purposes and, as seen in Table 2, few foreign workers stay to take part in industrial activities. This reflects Japanese control over the influx of foreign labour in accordance with the Immigration Control Law.

There are two related sets of issues with respect for foreign labour which should be considered in terms of immigration control. The first deals with the entry and employment of skilled workers and professionals, which has been strictly controlled. The

majority of qualified business residents are managers of foreign corporations in Japan, most of whom apply for and receive working visas from Japanese diplomatic establishments abroad. In recent years, European countries and the U.S. have tended to be increasingly strict in granting working visas to business people, while Japan has somewhat liberalized the process. At the same time, it is now comparatively easy for foreign language instructors and university professors to receive visas to work in Japan since they are regarded as possessors of special knowledge. Most of the individuals in the skilled labour category are cooks of Chinese cuisine.

Table 1
Permission to Work Under the Immigration Control Law

Visa Status	Persons in this Category	Periods Granted
4-1-5 (Business)	Persons conducting trade, business or investment activities; managers and executives of enterprises.	3 mos, 6 mos, 1 yr, 3 yrs
4-1-7 (Teaching)	Persons engaged in research or education at science and research institutes or educational institutes; professors, assistant professors at educational or research institutes.	3 mos, 6 mos, 1 yr, 3 yrs
4-1-9 (Entertainment)	Persons conducting plays, performances, performance of music, sports and other entertainment with paid admission; entertainers, professional sportsmen and their staff.	15 days, 30 days, 60 days
4-1-12 (Technology Transfer)	Persons invited by public or private organizations in Japan to provide the latter with special industrial technologies or skills.	3 mos, 6 mos, 1 yr, 3 yrs
4-1-13 (Skilled Labour)	Persons engaged in skilled labour, for example, cooks for Chinese or French restaurants.	3 mos, 6 mos, 1 yr
4-1-16-3 (Special Status)	Persons granted special permission by the Minister of Justice; persons not falling under any other status. Basically such persons are employed in Japan for their special techniques or skills that cannot be performed by Japanese counterparts. For example: foreign language instructors, buyers of foreign products.	Individually specified within the range of 3 yrs.

Source: Immigration Control Law.

Table 2
Number of Foreign Entrants by Working Purpose and Status

Category	New Entrants (Individuals)		Registered Foreign Residents (Individuals)	
	1987	1982	1986	1984
Business	6,177	7,063	7,148	5,943
Teaching	350	269	1,120	1,007
Entertainment	59,693	23,844	10,357	7,346
Technology Transfer	24	10	12	13
Skilled Labour	465	550	1,502	1,366
Special Status:				
Employment	756	871	6,242	3,004
Language Instructor	1,718	1,027	4,264	1,799
Total:	69,183	33,634	30,645	20,478

Note: Figures indicate numbers as of the end of December of each year.
Source: Ministry of Justice, *Immigration Control Statistic Yearbook and Statistics on Foreign Residents.*

An important future issue will be the handling of applications for permission to work under the skilled labour and special status categories, both of which concern applicants intending to join Japanese enterprises. (Language instructors are an exception as they receive relatively easy approval of their applications to teach in Japan.) The Ministry of Labour reviews the qualifications of those seeking admission in the skilled labour category, while the Ministry of Justice reviews the qualifications of those applying under the special status category. In both cases, the entrants are permitted to work for Japanese organizations provided they have special skills or technologies not possessed by Japanese nationals. Other than this stipulation, there are no uniform standards defining what constitutes a special skill or technique in terms of occupation or skill type, knowledge or job content, or skill level. Permission is granted on a case-by-case basis and is left to the discretion of the authorities. Applications are judged with considerable severity.

How the skilled labour and special status categories are handled is important because it is skills and knowledge that Japan most wants to introduce from abroad. It is natural that foreign professionals will want to take part in business planning, development, design, sales, public relations, finance, production control and other knowledge-intensive economic activities in Japan. Moreover, Japan will best prepare for the future development of its industry by gathering talented people from all over the

world and placing them at the centre of its business activities. The current application of the Immigration Control Law is too restrictive to allow for this to take place because it places inordinate emphasis on "special skills that cannot be replicated by a Japanese national". Japan needs to introduce talented foreign labour not only to provide special skills, but also to compete with Japanese workers and, by doing so, encourage them to raise their skill level. Should Japan continue to apply the Immigration Control Law so restrictively, it will hamper the further development of its industry.

The employment of skilled foreign workers in Japanese enterprises is not without problems. Until recently, industries did not normally employ foreigners as anything other than language teachers, international relations staff, or as specialists possessing some unique skill. It is only recently that a few Japanese companies have begun to employ foreigners in their domestic operations with equal opportunities for advancement into management positions. Simultaneously, Japanese enterprises have expanded their presence into world markets and have increased the numbers and responsibilities of local employees working for these firms in their own countries. If the global activities of Japanese enterprises are to further develop, there is a growing need to establish an integrated and responsible personnel strategy, including both head and foreign office employees, that will attract highly competent people from all over the world. In order to accomplish this, it is urgent that Japanese enterprises re-evaluate their self-conceptions and reorganize their personnel systems.

The unskilled labour market presents a second set of problems. Although there are no legal provisions for the introduction of foreign, unskilled labour under the current Immigration Control Law, the number of such workers has been increasing in various industries in recent years. As previously mentioned, a large number of these workers have been permitted entry for entertainment purposes. More than a few of these are singers or dancers in name only, and make a living offering other services in restaurants, resorts, and the gay quarters. Many others enter Japan as language students and work beyond the allowable limits. In addition, an increasing number of foreigners enter Japan on tourist visas and then engage in labour activities. These are the grey areas of the foreign, unskilled labour issue.

Table 3 outlines the number of prosecuted cases in which entrants were either engaged in unauthorized activities outside of their visa status, or were residing illegally in Japan and engaging in unauthorized activities. Between 1982 and 1987, the number of foreign individuals found engaged in illegal activities or unauthorized stays soared from 1,889 to 11,307. Table 4 indicates the breakdown of professions that illegal entrants were engaged in. Violators were predominantly female and working as hostesses. Male violators were either construction workers, factory workers, or handymen. These figures represent the number of violators arrested by the authorities and turned over to their embassies and legations in Japan and are but the visible peak of an iceberg. According to some estimates, the number of illegal entrants engaged in unauthorized work exceeds 50,000.

Table 3
Number of Violations of Unauthorized Activities and Illegal Stays

Year	Unauthorized activities Outside of Visa Status	Illegal Stays	Total
1982	1,025	864	1,889
1983	3,115	1,516	2,339
1984	5,569	4,426	4,475
1985	6,592	5,411	5,629
1986	9,215	7,782	8,131
1987	12,792	10,935	11,307

Note: The number of illegal stays prosecuted represents the cases related to unauthorized activities outside their status.

Source: Ministry of Labour, *1988 Report of the Institute for the Study of Foreign Worker Problems.*

Table 4
Breakdown of Professions of Entrants and Illegal Foreign Residents Engaged in Unauthorized Activities, 1987

Profession	Male	Female	Total
Hostess	----	6,076	6,076
Construction Worker	1,862	1	1,863
Stripteaser	1	259	260
Prostitute	----	203	203
Factory Worker	1,036	65	1,101
Handyman	515	88	603
Waiter	187	96	283
Sales Clerk	132	68	200
Picture/Book Vendor	254	12	266
Cook	96	7	103
Total	4,289	7,018	11,307

Source: Immigration Office materials, Ministry of Justice and the previously cited report by the Ministry of Labour.

Despite the fact that the entry and employment of foreign unskilled labour is prohibited under the current Immigration Control Law, these numbers are increasing. This development is of concern for several reasons. First, it is difficult to come to grips with the actual state of affairs since neither illegal workers, nor those who employ them, report these activities to the government. With both the employer and the employee engaged in clandestine activities, the situation often leads to illegal organizations involving the black market. In this environment, the basic human rights of illegal workers cannot be guaranteed and they have little recourse in the case of unpaid wages, forced labour, on-the-job injury, breach of agreement, or poor working conditions.

The influx of low-wage, foreign labour may also reduce employment opportunities for marginal Japanese labourers, further destabilizing an already bleak employment picture for this group, which includes seasonal Japanese labourers, unskilled female labourers, and middle-aged and elderly workers.

Enterprise use of low-wage, foreign labour, while helping to ease labour supply bottlenecks, simultaneously weakens their modernization and streamlining efforts. This will negatively affect the consolidation of industrial structure and the strengthening of national and international competitiveness.

Finally, low-wage, foreign labourers generally face severe living conditions while in Japan. This is not only undesirable from the standpoint of the health and economic welfare of the labourers themselves, but could also lead to socially undesirable consequences in both a domestic and international context. Because of their illegal status, the bargaining position of illegal workers is weak and they are often paid wages far lower than their Japanese counterparts. It is also possible that since they are from countries with lower per capita incomes, they misunderstand the currency value placed on their labour in the Japanese market. These workers must often save from their meagre incomes to repay loans they took out to purchase their air fare to Japan, to send money home, or to pay their lodging and living expenses. With Japan's high prices, their living conditions are extremely difficult and they do not have the benefit of insurance against accident or illness. If their numbers continue to increase, the formation of slums in Japanese cities is a distinct possibility and, as is the case in many advanced countries, the slums may become a hotbed of social problems.

From the perspective of the home governments of the foreign workers, these individuals are far from the lowest stratum of their country's labour force—they are vigourous enough to go overseas to work and can either pay their own air fare or borrow it. In fact, they represent an extremely important source of labour in their homeland. If these labourers are employed only for low-wage work and go home without acquiring any skills, their countries will be dissatisfied with the small return given to such vigourous efforts. This would not be a welcome development in Japan's efforts to cultivate friendly relations with neighbouring countries and promote international cooperation.

In sum, the introduction of foreign labour to Japan has a number of desirable effects. In terms of the objective but abstract logic of economics, however, it also presents a number of difficulties.

Foreign Labour Propositions

The use of foreign labour is now a prominent public policy concern and, since the spring of 1988, a succession of reports and recommendations dealing with this issue have been released by public and private sector organizations.

In the public sector, the Ministry of Foreign Affairs is investigating the implications of a general relaxation of the Immigration Control Law and its impact on Japan's international relations, while the Ministry of International Trade and Industry is promoting studies that advocate relaxing control over the introduction of foreign labour in response to the needs of industry. In addition, the Economic Planning Agency, the Ministry of Labour, and the Ministry of Justice are examining the problem through related organizations or special research groups. For example, in March 1988, the Study Group on the Problems of Foreign Workers within the Ministry of Labour proposed an expansion of the legal framework that allows for the employment of foreigners with specific skills or knowledge. Simultaneously, it held to its opposition of accepting unskilled foreign labour. Similarly, in April 1988, the Social Policy Council, an advisory body to the Prime Minister, proposed "liberalizing the acceptance of foreign labourers possessing special techniques or skills". Furthermore, the New Economic Plan includes a principle of positive acceptance of foreign workers with professional skills. Meanwhile, the Ministry of Justice announced the essential features of a proposed revision of the Immigration Control Law. The proposal calls for adding eight new immigration categories to the eighteen that already exist. These categories would extend to designers of software, professionals with special skills, intra-enterprise transferees, teachers, law firm employees, welfare and medical workers, students and long-term residents.

In business circles, the foreign labour issue is also being studied by such groups as the Japan Federation of Employers' Association, the Japan Committee for Economic Development, and the Tokyo Chamber of Commerce and Industry. The Council of the Japan Construction Industry and other industrial organizations have already announced their reports on the issue and labour unions are also beginning to examine the subject.

The positions taken by most groups in the private and public sectors, in general, address two points. The first involves the acceptance of increased numbers of skilled and knowledgeable foreign workers. To date, Japan has issued work permits on a case-by-case basis, generally admitting businessmen, language instructors, and any individual whose skills cannot be replicated by a Japanese counterpart. However, the recent trend is toward an increase in the number of job classifications for which permits will be granted, as well as pressure for clearer standards governing the acceptance of such workers. The second point of discussion concerns the question of unskilled labourers. The Study Group of the Ministry of Labour is opposed to the introduction of foreign unskilled labour. This position is similar to that taken by the majority of reports and recommendations which call for a careful approach, since the official introduction of unskilled labour may lead to domestic employment difficulties and other socio-economic problems.

Notwithstanding the principle of prohibiting the introduction of unskilled labour, we have to recognize that the number of such labourers entering Japan continues to increase. Japan does not believe it can prevent the influx of foreign labour by simply

declaring a principle of prohibition. It does, however, assume that such a principle will better serve to check the flow than one of liberalization, and no doubt there is some truth to this. Nevertheless, the immediate problem is not whether to let unskilled labour enter the country, but rather how to deal with the foreign labourers who are already here. Whether they are here legally or illegally, they are increasingly a part of Japanese society. If law and immigration policy were all it took to fully control illegal immigration, these people would not have entered Japan to begin with. The fact that the number of foreign unskilled labourers is increasing in spite of prohibitions, implies that it is next to impossible to completely control their influx, even with a considerably strengthened immigration system. Moreover, as long as income gaps exist between Japan and its neighbouring developing countries, it is likely that the number of foreign labourers in Japan will continue to increase.

With due consideration of parental expectations, social attitudes and values, and lifestyles, one must question whether the current education system is capable of coping with an influx of foreign children? In Japanese schools, overall levelling, homogenization and shared values are emphasized to an extreme degree. How will children of different races, possessing different languages and cultures, adjust? Although the children of skilled professionals may find the difficulties somewhat minimized, what about the children of labourers who are employed in low-wage sectors? Their difficulty in adjusting is beyond imagination, especially when material subsistence itself is difficult to maintain.

If we dare to address this issue, it will require an enormous commitment. For example, consider the effort and expense European and American societies and schools undergo to teach their languages to the children of foreign immigrants. Conversely, should we refuse to bear such a burden, expense and effort may be conserved in the short term, but the end result will be a segregated society, with separate languages and living standards, or even a new social class, centred around foreigners. Such problems are seen in countries in Europe and America, despite great expense and effort exerted to redress the situation. Similar problems in Japan might force the nation to bear a loss in terms of social cohesion far greater than the expense and effort required to smooth the process through education now.

Japan must face the fact that the situation has passed the stage of discussing the pros and cons of the introduction of a foreign labour force. The question now is how to grapple with this long-term social problem, and how to allocate the effort and expense needed for its solution. This most fundamental viewpoint is missing from the recent controversy over foreign labour.

The Need for Domestic Foreign Aid

A number of the long-term social problems associated with the presence of foreign unskilled workers stem from the fact that these people are employed solely for their low wages in sectors with poor working conditions. Table 4 indicates that most unauthorized

male workers are engaged in unskilled labour as construction workers, handymen and factory workers. These fields pay high wages only when labour is in short supply and then, only temporarily or locally. Normally, these fields offer low wages and inferior working conditions and oblige foreign workers to endure severe living conditions. Should foreign labourers be guaranteed living and working conditions comparable to those of their Japanese counterparts, employers only interested in offering low wages would have no incentive for employing foreign unskilled labour, and many of the associated social and economic problems would be eliminated. The merit in hiring foreign workers would then be the youth and energy they bring to the workplace.

This leads me to suggest two propositions concerning the acceptance of foreign workers: 1) For foreigners possessing a high level of skill and knowledge, acceptable immigration standards and job classifications should be clearly defined, and the framework for receiving such individuals should be greatly expanded; and 2) For unskilled foreign workers desiring to work in Japan, opportunities for vocational training in Japan should be provided, and only those who have acquired a specific skill upon completing a course would be given permission to work.

The first point is an opinion common to many of the propositions already discussed and the effect is self-explanatory. However the second proposal requires some explanation of its merits. First, since a person completing a training course would possess certain skills, he would receive appropriate payment and would be able to maintain an acceptable standard of living. Any employer who discriminated against such a person by paying him less than a Japanese labourer having the same level of skill should be severely punished. The Employment Permit System, as proposed by the Ministry of Labour Study Group on the Problems of Foreign Labourers, deserves special consideration as a first step toward the establishment of a system designed to ensure appropriate working conditions for foreign labourers. Instead of simply granting work permits to individual labourers, this system will only allow employers permission to hire foreign workers after employment conditions have been examined.

Foreign labour can also contribute to a lessening of the shortage of skilled labour in certain industries. For instance, in construction work the employment of foreigners would not be permitted for miscellaneous services, conveyance, or other simple jobs. Instead, construction companies would only be permitted to employ them in skilled positions, such as formworkers. In the case of harbour work, foreigners would be employed only for skilled jobs such as operating cranes, setting slings, etc. In the case of factory labour, since intra-enterprise training systems are established on the basis of on-the-job training (OJT), foreign labourers could be further trained as apprentices until they acquired a certain level of skill.

This system would force that portion of Japanese industry that regards foreign labour as merely low wage labour to change its way of thinking. What is needed is concrete and systematic research into determining what type of training would most benefit unskilled foreign labourers in terms of their actual experiences, and in terms of establishing policies and mechanisms to achieve such training.

A third advantage is that by providing unskilled foreign labour with the opportunity to receive education and training, Japanese industries can benefit from energetic foreign labourers desiring to work in Japan. In the broadest sense this must be considered as assistance for manpower training and could also include financial aid for foreign students studying in Japan. Foreigners who acquire skills and settle in Japan will become an important asset to Japanese industry by contributing to the long-term development of the Japanese economy. Conversely, those who fail to complete their educational training or acquire a certain level of skill would not have their visas renewed.

Foreign labourers who return to their own countries after completing their training, or after working for a certain duration for a Japanese enterprise, will contribute to the industrial development of their countries with the skills they acquired in Japan. Thus their training and education in Japan will serve as a powerful domestic-based foreign aid program. Such a program is not limited to contributing directly to Japanese industrial activities through the services of foreign trainees and labourers. Since these individuals will return to their countries with a command of practical Japanese as spoken in the workplace, they will form an important foundation for expanding industrial exchanges between Japan and these countries.

Finally, the training of foreign labour can be provided in production facilities located in industrial zones all over Japan; zones whose productivity rates have been on the decline. Skilled Japanese workers rich with work experience, but now middle-aged and older, can be employed to train these labourers. Moreover, since these individuals can teach foreigners on their own job sites, in their own localities, using their own language, they are more readily available as trainers, and they will find the job easier than if they had to go abroad to perform the same task.

Once foreign trainees have attained an appropriate level of skill, they must be guaranteed working and living conditions on par with those of their Japanese colleagues. These conditions include reasonable wages and working hours, health insurance, compensation for workmen's accidents, pension, education for their children, and other fringe benefits.

The expense of such training and education would be covered by the state. In order to prevent abuse, air fare or some part of the training expense could be borne by the trainee, or the cost of training might be in the form of a loan rather than a grant. There is no denying that a project which seeks to train 100,000 to 200,000 persons annually, in all parts of Japan, will cost enormous amounts of money. However, although Japan's Official Development Aid (ODA) has recently grown sharply in nominal terms, it remains relatively low in comparison with that of other advanced nations, and is even less when analyzed from the perspective of donated assistance. Money spent in training an efficient and effective source of foreign manpower could prove to be a valuable and highly profitable international investment.

Conclusion

Because of the increasing global influence of the Japanese economy and the rise in Japan's nominal per capita income, Japan has become deeply integrated into the international flow of material, capital, and human resources. In this ever-tightening international network of mutual dependency, Japan's role will continue to increase. This trend towards internationalization and a borderless society presents Japan with the challenge of the internationalization of manpower. If Japanese firms are to rise to the challenge of Japan's increasing influence in the global economy by becoming truly global enterprises, it is essential that firms draw on a superb work force to support their business activities, regardless of a particular worker's national origin. To achieve this, Japan's immigration practices toward foreign workers must be drastically reviewed. At the same time, the closed personnel practices of a number of Japanese firms, based on various unspoken rules, must be thoroughly reorganized and liberalized.

The recent influx of unskilled workers from abroad appears to have reached the point of no return. Should industries continue to draw on this labour source purely because of its cheap wages, intractable and costly social problems will soon result. To prevent this and to contribute to the welfare of the international community, it would be useful to create a large-scale educational and training program for foreign workers desiring to participate in Japan's economy. Such a program could be characterized as a domestic foreign aid program.

Japan is being challenged to show how it can cope with its new status and responsibilities as a major influence in international society. How well we rise to this challenge depends on our ability to reorganize our approach to business and society.

Immigration, the Canadian Labour Force, and Structural Change

Shirley B. Seward
and
Marc Tremblay
Institute for Research on Public Policy

Introduction

For many decades, Canadian immigration policy has placed considerable emphasis on the economic objective of immigration, particularly the role immigration plays in the labour market. Successive Canadian governments, to a greater or lesser extent, have viewed immigration as a source of labour force growth and as one mechanism for dealing with labour market needs, such as shortages of labour in particular occupations and industries.

This is not to suggest that the economic objective of immigration is restricted to its role in the labour market or its supply-side function. To the extent that immigration increases the size of the total population, thereby increasing the demand for goods and services, it is assumed to have a stimulative effect on the Canadian economy. Nor are economic considerations the only goals of immigration policy. Indeed, the 1976 Immigration Act cites three major objectives of immigration: the economic objective wherein "independent class" immigrants are selected on the basis of labour market needs; the social objective which encourages family reunification through the admission of "family class" immigrants; and the humanitarian objective of immigration which facilitates the admission of "refugees and designated classes." In addition, is the overriding demographic objective, which views immigration as a tool for stimulating population growth, as well as delaying population decline and aging.[1]

While the goals of immigration are not restricted to economic, and particularly labour market considerations, the reality is that all classes of immigrants—not only independent class immigrants—from all parts of the world, participate in the labour

force. At the time of the 1986 Census, 64.7 percent of all immigrants were in the labour force, and immigrants made up 18.4 percent of the total labour force in Canada.

Given this significant proportion of immigrants in the labour force, and the explicit economic goal of immigration policy in this regard, it is not surprising that a considerable body of research has emerged on the economic adaptation of immigrants in the Canadian labour force. Using Census and survey data, such research has compared the labour market experience of immigrants and non-immigrants, and of different groups of immigrants, using measures such as the rate of labour force participation, unemployment, occupational status and mobility, returns to education and occupational qualifications, and employment income. At the same time, important advances have been made in the development of theory that seeks to explain the process of immigrant adaptation.

Richmond (Richmond and Zubrzycki, 1984, Chapter 1) has developed a comprehensive categorization of six major theoretical models of immigrant adaptation. While it is not the purpose of this paper to discuss these models in detail, it is useful to describe briefly the main thrust of each. The "functionalist assimilation" model assumes that most immigrants enter the system at the bottom and that there is a gradual convergence, over time, toward the characteristics of the majority population. The "Marxist conflict" model also assumes that immigrants enter at the lowest levels of skill, status, and income, but suggests that the upward mobility anticipated in the functionalist model is constrained by established workers, and that immigrants constitute a "reserve army" of cheap labour. "Colonial domination," the third model, sees immigrants as an economic elite, who may or may not stay in the receiving country on a permanent basis. The "pluralistic" model is broader than the functionalist model, in that it recognizes that not all immigrants enter the system at the bottom, and that there are variations in the capacity for upward mobility in different cultural groups. The fifth model recognizes that the labour market is segmented and stratified on the basis of sex, ethnicity, educational levels, and so on. The "dual labour market" concept in which immigrants provide cheap labour as well as being a source of highly skilled labour, is a key aspect of this "ethnic stratification and segmentation" model. Finally, Richmond's "structural change" model sees immigrants not as simply adapting passively or assimilating to prevailing structural and cultural conditions, but as agents of social change in the receiving society. Richmond elaborated the major premises of this model as follows:

> . . . it is important to recognize that economic systems and labour markets are constantly changing in response to technological innovation, the supply and demand for labour, and varying world conditions. In these circumstances, the need for more workers may be substantial in expanding industries and declining in others. Immigrants are able to respond to these conditions by entering those industries and occupations where the need is greatest. . . . In some cases, the indigenous population may take advantage of mobility opportunities, leaving labour shortages in unskilled and less well-paid employment. In others, manpower training may not occur quickly enough, nor on a scale sufficient to meet skill shortages at higher levels, in which case qualified immigrants may be encouraged to enter higher status occupations.
>
> (Richmond and Zubrzycki, 1984, Chapter 1, p. 4)

While a number of these models have been used to shed light on the process of economic adaptation of immigrants, there is an emerging consensus among most researchers that no single model can adequately explain the full range of experiences among different groups of immigrants. Richmond has argued that a combination of the pluralistic, ethnic stratification and segmentation, and structural change models is perhaps most helpful in explaining immigrant adaptation in the Canadian case (Richmond and Zubrzycki, 1984, Chapters 2 and 6). However, while the first two of these models have been explored in a number of studies, the structural change model, which perhaps best captures the intent of the economic goal of immigration policy, has been tested empirically in very few studies (see especially Richmond and Zubrzycki, 1984, Chapter 2; Richmond, 1967; Richmond and Kalbach, 1980; McInnis, 1980; and Marr 1986).

Richmond (Richmond and Zubrzycki, 1984) assesses the extent to which immigrants responded to the changing demand for labour that resulted from industrial restructuring between 1951 and 1971. He examines the change in the composition of overall employment by industrial sector in 1951 and 1971, and compares this to the change in the distribution of immigrants in the two years. Richmond concludes that immigrants tend to be concentrated in industries that are expanding and tend to avoid those that are not growing as rapidly. While Richmond recognizes that labour market segmentation and other models of economic adaptation are useful in interpreting these findings, he suggests that the analysis provides considerable support to the structural change model of immigrant adaptation.

A study by McInnis (1980) lends further support to the hypothesis that immigrants tend to be concentrated in expanding industries. McInnis finds a positive correlation between the relative differentiation of immigrants at the time of the 1971 Census and the growth rates of industries over the 1961 to 1971 decade. He points out that even those low-wage, low-skill industries in which immigrants are over-concentrated had experienced relatively rapid expansion of employment over the previous decade.

Marr (1986) analyzes the extent to which, at the time of the 1981 Census, the foreign-born were over- or under-represented in occupations that were expanding relatively quickly over the period 1971 to 1981. Since this study is based on the situation ten years after the two studies described above, and since the analysis is based on occupation rather than industry, the findings are of particular interest. First, Marr found that "foreign-born males seem to have done a better job than foreign-born females in being over-represented in the fast growing occupations of the 1970s..." (Marr, 1986, p.772). Males in 1981 were over-represented in most of the fast growing occupations and in only a minority of the slow growth occupations. By contrast, females were over-represented in a minority of the fast growing occupations, but in more than 50 percent of slow growth occupations. Second, Marr found important differences by period of arrival, concluding that, "In general, the most recent arrivals are more likely to be under-represented in the fast growth occupations" (Marr, 1986, p.772).

Would an examination of the industrial distribution of immigrants at the time of the 1986 Census reveal similar results to those evident in the Richmond and McInnis studies based on the 1971 Census? Would a 1986 study of industrial distribution bear any resem-

blance to Marr's 1981 study of occupational distribution? A number of significant changes have occurred in the international and Canadian economies since 1971. Canada, like many industrialized countries, has continued to move toward a post-industrial economy, characterized by a rapidly expanding service sector and declining secondary and primary sectors. At the same time, there have been important changes in the nature of Canadian immigration policy since the early 1970s. With increasing proportions of refugee and designated classes (referred to hereafter as the refugee class) and family class immigrants, the pure economic objective of admitting immigrants on the basis of their suitability for the labour market has been moderated, and immigration policy has become less selective than it was in the 1960s.

The purpose of this paper is to assess the extent to which the structural change model of immigrant adaptation is applicable to immigrants in the labour force at the time of the 1986 Census. In particular, are immigrants concentrated and over-represented in industries where employment grew relatively quickly or slowly between 1971 and 1981?[6] In other words, are immigrants responding to the need for labour in expanding parts of the economy, as Richmond and McInnis found in 1971, or are they concentrated and over-represented in industries that are in relative decline?[7] And, are there differences among different groups of immigrants, depending on sex, place of birth or length of time in Canada?

To address these issues, the paper is organized in four parts. Part One briefly reviews immigration trends since the Second World War. This includes a discussion of changes in immigration policy, as well as shifts in the proportion of immigrants by immigration class and place of last permanent residence. Part Two describes select characteristics of immigrants in the labour force, including their educational levels and knowledge of French or English. Part Three analyzes the role immigrants play in the Canadian industrial structure and endeavours to answer the questions posed above regarding the extent to which immigrants respond to labour needs. This section includes a review of changes in the Canadian industrial structure between 1971 and 1981. Finally, a concluding section summarizes the major findings of the paper and suggests broad implications for public policy.

Part 1. Recent Trends in Immigration Policy and Immigration Flows

1. The Evolution of Immigration Policy

In October 1989, the federal government tabled its *Annual Report to Parliament on Future Immigration Levels* (Canada, Employment and Immigration, 1989), which raised gross immigration levels to 165,000-175,000 for 1990, an increase of 15,000 over the planning level for 1989. This represents the fifth consecutive year in which the government has endeavoured to increase immigration in a gradual manner, after several years of non-expansionist immigration policy and relatively low levels of immigration to Canada, particularly during the recession years of the early 1980s.

To appreciate the significance of this policy shift in the mid-1980s, it is helpful briefly to review the different phases of Canadian immigration since the Second World War, as well as the underlying economic and demographic conditions associated with changing immigration policy (Seward, 1987).

The post-war period saw an upsurge of immigrants. During the period of rapid economic growth in the 1950s and 1960s, an average of 130,000 immigrants per year entered Canada, with wide fluctuations reflecting the "tap-on, tap-off" approach, which based decisions regarding immigration levels on short-term labour force considerations. The open policy of the 1960s was expressed in the expansionist 1966 White Paper, which assumed that immigration plays a critical role in population and economic growth, particularly by permitting realization of economies of scale and thereby lowering prices of goods and services. The 1967 Regulations established a "points system" for selection of independent immigrants, a system that placed priority on education, skills and occupational background of immigrants and corresponded to current labour market needs. This policy stance was not surprising given the nature of the rapidly developing Canadian economy, which was frequently characterized by shortages of professional and skilled labour (Newton, Betcherman and Meltz, 1981).

In sharp contrast, the mid-1970s witnessed a reversal, with immigration policy emphasizing the high costs, not only of immigration, but of population growth more generally. There was some fear that immigration was out of hand, having reached about 220,000 in 1974 (Taylor, 1986). At the same time, the 1970s were characterized by very rapid growth of the labour force (3 percent per year), the highest growth rate of any decade in the twentieth century. This was attributable to a number of factors: the entrance into the labour force of the baby boom generation born in the late 1940s and the 1950s; increasing participation rates, especially of women; and relatively high immigration levels. While the labour force was growing, Canada, like many industrialized economies, was seriously affected by the energy crisis, with associated production slowdowns, as well as high rates of inflation. The result of these demographic and economic forces was increased unemployment. The reaction of the Canadian government was to endeavour to protect the living standards of its domestic residents, in part by restricting immigration (Marr and Percy, 1985). The 1974 Green Paper reflected this stance, pointing to the high costs of population growth.

During the late 1970s, the second oil shock further upset the international economic environment. In Canada, the early 1980s were characterized by high unemployment, high interest rates and general recessionary conditions. Perhaps not surprisingly, immigration policy became even more controlled in 1982, through a new provision that required all principal applicants in the independent class to have a validated job offer in Canada as a condition of entry.

Given this background of nearly 10 years of non-expansionist immigration policy[8], it is interesting that the mid-1980s were characterized by a major rethinking of immigration issues. It is no accident, of course, that the movement toward a more expansionist approach to immigration began at a time when Canada was emerging from the recession

of the early 1980s. Interest rates and the inflation rate had declined significantly and unemployment, although still high, had fallen from the levels of the early 1980s.

In June 1985, a government report emphasized the need for policy change and called for a "moderate, controlled increase" in immigration levels, particularly in the economic category, which had been losing ground in recent years. The report stressed that immigration policy must be based on longer-term planning, rather than short-term labour force considerations (Canada, Employment and Immigration 1985a). In October 1985, the government announced a significant increase in target immigration levels, from 85,000-90,000 in 1985 to 105,000-115,000 for 1986 (Canada, Employment and Immigration, 1985b). Much of the increase for 1986 was in the economic class, with special emphasis on attempting to increase business immigration, including the creation of a new category of business immigrant—the investor. Furthermore, the 1982 provision requiring independent applicants to have a validated job offer as a condition of entry was eliminated.

In addition to these policy changes in the desired level and class of immigration since the Second World War, there have also been important changes in policy regarding the origins of immigrants (Beaujot, Basavarajappa and Verma, 1988). It was not until 1962 that restrictions on immigration on the basis of national origin were officially lifted. Prior to that, preference was given to immigrants from France, the United States, and particularly Britain, with second preference given to those from Western Europe, if they were well qualified. With the exception of a very small number of immigrants from India, Pakistan and Sri Lanka, people from other countries could be admitted only if they were sponsored by a close relative.

The abolition of discriminatory immigration policies in 1962, was further strengthened with the introduction of the 1967 points system. "This reinforced the non-discriminatory aspects of immigration policy, by clearly outlining the 'education, training, skills, and other special qualifications' under which immigrants were to be selected. The policy of multiculturalism, promulgated in 1971, underlined an open attitude among Canadians to the arrival of immigrants from various parts of the world" (Beaujot, Basavarajappa and Verma, 1988, p.5).

2. *Recent Immigration Trends*

These changes in immigration policy in recent decades have greatly affected the level and composition of immigration flows. For purposes of this paper, it is especially enlightening to examine these trends over the period 1971-1986, with some reference, where appropriate, to the post-1986 years. First, while there have been annual fluctuations in the level of immigration, there has been a general decline in the level of gross immigration since the mid-1970s, when economic conditions in Canada were deteriorating and immigration policy became more restrictive. As shown in Table 1, from a peak of almost 220,000 immigrants in 1974, immigration levels were lower than 100,000 per annum

over the period 1983 to 1986. It was only after 1986 that immigration levels exceeded the 100,000 level again.

Secondly, there has been a decline in the proportion of independent class immigrants since the early 1970s (Table 2). In 1971, 72.6 percent of all immigrants entered in the independent class. This proportion began to fall in the mid-1970s and by 1983 was less than 30 percent of the total. Interestingly, the proportion of independent class immigrants has very recently begun to increase, undoubtedly because of improved economic conditions in Canada and the shift to a more expansionary immigration policy, with an emphasis on the independent class. However, the proportion remains far below that of the early 1970s.[9]

At the same time, there was a relative increase in the proportion of both family class and refugee class immigrants between 1971 and 1986. Table 2 reveals that in 1971, about 27 percent of all immigrants were in the family class. By 1983, this proportion had risen to close to 55 percent. Since then, the proportion has declined, but it remains higher than it was in the early 1970s, prior to the shift in immigration policy. The proportion of refugee class immigrants has increased significantly since the early 1970s. The proportion was greatest in 1979 (24.9 percent) and 1980 (28.2 percent), when Canada accepted relatively large numbers of "boat people" from Indochina. While these were exceptional years, it is also true that the proportion of refugees has been relatively high since that time, growing from 11.6 percent in 1981 to over 19 percent in 1985 and 1986.[10]

Finally, there have been pronounced changes in the composition of immigration in terms of country of origin. As shown in Table 3, almost 63 percent of immigrants came from traditional sources (i.e., Europe and North America) in 1971, and only about 37 percent were from non-traditional sources (i.e., Asia, Africa, Caribbean and Bermuda, Central and South America, and Oceania). By 1986, 70.0 percent were from non-traditional sources, with immigrants from Asia alone accounting for about 42 percent of all immigrants.

Part 2. Characteristics of Immigrants in the Labour Force

This section will describe some of the key characteristics of immigrants which are assumed to influence their performance in the labour market. These include place of birth, length of time in Canada, level of education and knowledge of French or English.

1. Place of Birth and Period of Arrival

In 1986, immigrants accounted for 18.4 percent of the total Canadian labour force of approximately 13 million.[11] Two-thirds of the immigrants in the labour force are from traditional sources and one-third are from non-traditional sources. About 60 percent of

immigrants currently in the labour force are long-term immigrants who arrived prior to 1971; about 30 percent are intermediate immigrants who arrived during the period 1971-1980; and the remaining 10 percent are recent immigrants, having arrived between 1981 and 1986. Whereas more than three-quarters of all traditional immigrants are long-term immigrants, about 70 percent of non-traditional immigrants arrived in the intermediate and recent periods.

2. *Level of Education*

Tables 4.1 through 4.3 provide information on the educational characteristics of the total labour force and the male and female labour forces, in crude and age-adjusted terms. Before adjustments are made for age, a higher proportion of immigrants than non-immigrants has some university education. This difference is quite large for males, where 29.5 percent of immigrants, compared to 22.2 percent of non-immigrants, have achieved this level of education. At the same time, a larger proportion of immigrants than non-immigrants has less than nine years of education and is therefore considered "functionally illiterate" (Council of Ministers of Education, Canada 1988).[12] The differences between immigrants and non-immigrants at this low level of education are most pronounced for females. In other words, immigrants, as a group, tend to be over-represented at the highest and lowest levels of education. When adjustments are made for age, however, the difference in the proportion of immigrants and non-immigrants with an elementary education is reduced, while the difference for some university education is increased. In other words, the older age structure of immigrants provides a partial explanation for the higher proportion of immigrants than non-immigrants with only elementary education. At the same time, the proportion of immigrants with some university education would be even higher than the crude rate if immigrants had the same age structure as the total population.

Non-traditional immigrants, on average, have higher crude levels of education than immigrants from traditional sources, particularly in the case of males. Thus, 40.0 percent of non-traditional male immigrants have university education, compared to 24.7 percent of traditional male immigrants. Also, a smaller proportion of non-traditional male immigrants (9.0 percent) than traditional male immigrants (18.1 percent) has less than nine years of education. When adjustments are made for age, it is clear that part of these differences is explained by the older age structure of traditional immigrants. Another likely explanation is that the majority of traditional immigrants arrived in Canada before the implementation of the 1967 points system, which admitted independent class immigrants on the basis of an evaluation of their education and skills, among other things.

There are important differences in the educational characteristics of immigrants by period of arrival in Canada, and there are sharp contrasts in this regard between traditional and non-traditional immigrants. In the case of traditional immigrants, educational levels are highest for recent arrivals and lowest for long-term immigrants.

The opposite is true for non-traditional immigrants, whose educational levels are highest for long-term immigrants and lowest for recent arrivals. In the case of females, 18.0 percent of recent arrivals from non-traditional sources have achieved only an elementary education. One factor that could account for these differences between traditional immigrants and non-traditional immigrants is the increasing proportion of refugees who have come to Canada since the late 1970s. Since refugees come primarily from non-traditional sources, and since they are not subject to the same points system used to select independent immigrants, it is perhaps not surprising that educational levels are lower for these recent arrivals. Some care should be taken in interpreting these findings, however. In this study, we did not compare educational characteristics by class of immigration, nor did we analyze the proportion of traditional and non-traditional immigrants by class of immigration and period of arrival. Also, the higher educational levels among earlier arrivals of non-traditional immigrants may be accounted for, at least in part, by education obtained in Canada after arrival. Presumably recent arrivals will have similar opportunities to upgrade their educational qualifications once in Canada.

Period of arrival is, of course, closely related to age. When adjustments are made for differences in age, it is clear than the older age structure of long-term traditional immigrants explains, in large part, the high proportion of these immigrants with only elementary education. Equally striking is the fact that after adjustments are made for the younger age structure of recent, non-traditional immigrants, the proportion of immigrants with only elementary education rises even higher. This suggests that the incidence of low levels of education among recent, non-traditional immigrants is even more serious than it appears on the surface.

3. Official Language Ability

An important determinant of "success" in the labour market is the capacity to speak one of the official languages. Tables 5.1 through 5.3 provide information on the official language ability of the total labour force and the male and female labour forces. While 3.1 percent of all immigrants are unable to speak either English or French, this proportion is higher for female immigrants (3.8 percent) than for male immigrants (2.6 percent). For both males and females, a higher proportion of non-traditional immigrants than traditional immigrants has no knowledge of either official language. This is not surprising, since a higher proportion of non-traditional immigrants comes from countries where English and French are not normally spoken as a first language. The difference is more significant for females, where 5.9 percent of non-traditional immigrants, compared to 2.8 percent of traditional immigrants, speak neither language.

The capacity to speak French or English improves dramatically with length of time in Canada, and language problems are most acute for the most recent arrivals. 13.9 percent of recent female immigrants from non-traditional sources could speak neither language, compared to 4.8 percent of those who arrived during the 1970s. This points to the importance of language training, an issue discussed further below.

Part 3. Immigrants in the Canadian Industrial Structure

We turn now to the analytical questions raised in the Introduction to this paper regarding the extent to which immigrants respond to labour needs in the economy. The analysis is in two parts. First, we determine the absolute proportions of immigrants that are located in expanding and declining industries, based on industry growth rates between 1971 and 1981. Second, we assess whether immigrants are relatively over-represented in industries that are expanding or declining.[13,14] To explore these questions, it is necessary first to review the major changes that occurred in the Canadian industrial structure between 1971 and 1981.

1. Past Trends in the Canadian Industrial Structure, 1971-1981

A detailed analysis of changes in employment by industry within the business sector between 1971 and 1981 was undertaken by the Economic Council of Canada and released in 1987. Table 6, which is derived from that study, indicates that for all industries, the average percentage change in employment between 1971 and 1981 was 35.3 percent. With one exception (transportation and storage), all industries in the service sector expanded rapidly over this period. In descending order, this was most pronounced for services to business management (113.2 percent), amusement and recreation services (85.4 percent), other personal and miscellaneous services (82.6 percent), and accommodation and food services (72.5 percent). On the other hand, with only three exceptions (petroleum and coal products, machinery, and rubber and plastics), all industries in the secondary sector, as well as the primary sector, had changes in employment that were below the all-industry average. In fact, several industries in the secondary sector had employment losses over this period. These declining industries include tobacco products, leather industries, textile industries, knitting mills and clothing.

2. The Role of Immigrants in the Labour Force: Their Response to a Changing Industrial Structure

(a) Absolute Proportion of Immigrants in Expanding and Declining Industries

Table 7 shows the absolute proportion of immigrants and non-immigrants in industries with above-average, below-average (but positive) and negative employment growth over the period 1971 to 1981. The discussion that follows focuses on the two extreme examples of industries with above-average growth (rapidly expanding industries) and industries with negative growth (declining industries).

One of the most striking features of Table 7 is that for every immigrant and non-immigrant group, females are concentrated more heavily than males in both rapidly expanding industries and declining industries. (The former is undoubtedly attributable,

in large part, to the larger proportion of females in the rapidly expanding service sector.) However, when comparing immigrants and non-immigrants, it would appear that female immigrants are at a disadvantage. Whereas 72.4 percent of female non-immigrants are in rapidly expanding industries, the proportion is 65.9 percent for female immigrants. Also, a higher proportion of female immigrants (9.6 percent) than non-immigrants (2.8 percent) is in declining industries. This is especially marked for immigrant women from non-traditional sources, 12.3 percent of whom are in industries that experienced employment losses between 1971 and 1981.

The situation is quite different for males. A higher proportion of immigrants (47.1 percent) than non-immigrants (44.3 percent) is located in rapidly expanding industries. This is especially marked for non-traditional immigrants, 55.5 percent of whom are in such industries. At the same time, a somewhat larger percentage of immigrants than non-immigrants is in declining industries, particularly in the case of non-traditional immigrants. However, it is worth noting that the proportion of male immigrants in these declining industries is very small (2.4 percent) compared to that of female immigrants (9.6 percent).

Table 8 focuses on non-traditional immigrants, comparing the absolute proportion of immigrants in rapidly expanding and declining industries by period of arrival. In the case of males, a higher proportion of recent immigrants (57.9 percent) than intermediate (54.7 percent) or long-term (55.4 percent) immigrants is in rapidly expanding industries. At the same time, the proportion of immigrants in declining industries increases with recency of arrival. For females, not only does the proportion of immigrants in rapidly expanding industries decline with recency of arrival, but the proportion of immigrants in declining industries increases, from 6.5 percent of long-term immigrants to 18.0 percent of recent immigrants.

Table 9 provides identical information for immigrants from traditional sources. There are interesting contrasts with non-traditional immigrants. For males, the absolute proportion of immigrants in rapidly expanding industries increases with recency of arrival; however, the absolute proportion of traditional immigrants in these industries is lower than that of non-traditional immigrants for all periods of arrival. For example, while 48.6 percent of recent traditional immigrants are in rapidly expanding industries, the corresponding proportion of non-traditional immigrants is 57.9 percent. At the same time, while the proportion of traditional immigrants in declining industries is somewhat higher for recent immigrants (2.1 percent) than for intermediate (1.6 percent) or long-term (1.9 percent) immigrants, the proportions are very small. It would appear that the majority of traditional male immigrants are in industries with below-average, though still positive, growth.

Table 9 reveals that the proportion of traditional female immigrants in rapidly expanding industries increases with recency of arrival. Indeed, 70.1 percent of recent immigrants are in these high-growth industries. At the same time, a smaller proportion of recent immigrants (6.4 percent) than intermediate (8.5 percent) or long-term (8.1 percent) immigrant women is in declining industries. These findings are the opposite of those described for immigrant women from non-traditional sources.

(b) Relative Over-Representation of Immigrants in Expanding and Declining Industries

In addition to examining the absolute proportions of immigrants in expanding and declining industries, it is revealing to assess the extent to which they are relatively over-represented in such industries, compared to their representation in the labour force as a whole. Tables 10.1 through 10.3 provide such information for the total, the male and the female immigrant and non-immigrant labour forces, with comparisons between traditional and non-traditional immigrants. The left-hand column of each table lists the individual industries characterized by above-average, below-average (but positive) and negative growth, in descending order of growth rate. The columns for each non-immigrant and immigrant group identify only those industries in which each group is relatively over-represented, showing the actual percentage of the industry labour force that each group represents. Numbers with an asterisk identify industries where each immigrant group is *heavily* over-represented.[15]

In the case of males (Table 10.2), non-traditional immigrants are over-represented in seven of the 11 rapidly expanding industries and are heavily over-represented in two of these—accommodation and food services and rubber and plastic products. Traditional immigrants are over-represented in six of the rapidly expanding industries and are heavily over-represented in only one—machinery. In other words, non-traditional immigrants are in a more favourable position in rapidly expanding industries than traditional immigrants. On the other hand, non-traditional immigrants are heavily over-represented in a larger number of industries that are declining or that have below-average growth.

Table 10.3 reveals that non-traditional immigrant women are over-represented in a larger number of rapidly expanding industries than are traditional immigrant women. Immigrant women from non-traditional sources are over-represented in fewer industries with below-average growth, but in the same number of declining industries, as are immigrant women from traditional sources.

Are there differences in the over-representation of immigrants in expanding and declining industries by period of arrival? Tables 11.1 through 11.3 provide this information for the total immigrant labour force and for male and female immigrants from traditional and non-traditional sources. It should be noted that calculations are based on separate population bases for traditional and non-traditional immigrants, thereby permitting comparisons for each group by period of arrival. This is a different approach from that used in Tables 10.1 through 10.3, where the total labour force constitutes the population base.

Table 11.2 shows that intermediate and recent male immigrants from traditional sources are over-represented in a larger number of rapidly expanding industries than is the case for long-term immigrants. Indeed, intermediate and recent immigrants are over-represented in the four most rapidly growing industries in the economy, and recent immigrants are heavily over-represented in business services, which experienced the most rapid rate of growth of all industries between 1971 and 1981. At the same time, intermediate and recent immigrants are in a marginally better position with respect to

below-average growth and declining industries, where they are each over-represented in eight cases, compared to the nine such industries where long-term immigrants are over-represented. However, this slight advantage is probably offset in the case of recent immigrants, since they are heavily over-represented in two of these industries.

In the case of male immigrants from non-traditional sources, Table 11.2 reveals that, as is the case with their traditional counterparts, intermediate and recent immigrants are over-represented in a larger number of above-average growth industries than are long-term immigrants, although the differences are not as great as they are for traditional immigrants. (Interestingly, in the case of non-traditional immigrants, long-term arrivals are those who are over-represented in the very rapidly growing business services industry.) On the other hand, intermediate and recent immigrants are in a much less favourable position than long-term immigrants in industries characterized by below-average or negative growth. Intermediate immigrants are over-represented in 13 of these 18 industries, compared to over-representation in only five of the same industries for long-term immigrants. Recent immigrants, who are over-represented in nine of these industries, appear to be in a better position than intermediate immigrants. However, this advantage is offset to a certain extent since, in four of these industries, including the three declining industries, recent immigrants are heavily over-represented.

Table 11.3 provides data on differences in over-representation of female immigrants by period of arrival. In the case of traditional immigrants, recent immigrants are over-represented in a larger number of rapidly expanding industries than either intermediate or long-term immigrants. Both recent and intermediate immigrants are over-represented in the four most rapidly-growing industries, and recent immigrants are heavily over-represented in one of these four (other personal services). Recent immigrants are also advantaged, compared to earlier arrivals, in terms of industries with below-average or negative growth. Recent immigrants are over-represented in seven of these industries, compared to eight for intermediate immigrants and 10 for long-term immigrants. It is interesting to note that recent immigrants are not over-represented in any of the declining industries, whereas medium-term immigrants are over-represented in all of them.

Immigrant women from non-traditional sources display patterns different from those of traditional immigrants. Intermediate immigrants from non-traditional sources are over-represented in eight of the 11 rapidly expanding industries; by comparison, in five of these 11 industries, recent and long-term immigrants are over-represented. Both long-term and intermediate immigrants are over-represented in the two most rapidly growing industries. Recent immigrants are under-represented in these two industries, but are heavily over-represented in two of the other rapidly expanding industries. In industries with below-average or negative growth, long-term immigrants, who are over-represented in only four of the 18 industries, are in a more favourable position than either intermediate immigrants, who are over-represented in 15 of these industries, or recent immigrants, who are over-represented in 12. While it appears that recent immigrants are in a somewhat better position than intermediate immigrants, it is worth noting that recent immigrants are heavily over-represented in two of the three declining industries, including clothing.

Summary of Findings

The preceding analysis reveals important findings. The most significant of these can be summarized separately for immigrant females and males as follows.

Female Immigrants

A smaller absolute proportion of immigrant women is located in rapidly expanding industries, and a larger proportion is located in declining industries, than is the case for non-immigrant women.

While similar absolute proportions of non-traditional immigrant women (65.5 percent) and traditional immigrant women (66.2 percent) are located in rapidly expanding industries, a larger proportion of non-traditional women (12.3 percent) than traditional women (8.1 percent) is located in declining industries. In terms of relative over-representation by industry, non-traditional immigrant women are over-represented in a larger number of rapidly expanding industries than traditional immigrant women, and are over-represented in the same number of declining industries as are traditional immigrants.

In the case of non-traditional immigrant women, a lower absolute proportion of recent arrivals is in rapidly expanding industries, and a larger proportion is in declining industries, compared to earlier arrivals. Recent arrivals are relatively over-represented in fewer rapidly expanding industries than are intermediate arrivals. Also, recent and intermediate immigrants are relatively over-represented in a larger number of below-average growth and declining industries than are long-term arrivals.

The situation is much more positive for recent traditional immigrant women. Compared to earlier arrivals, a higher absolute proportion of recent arrivals is in rapidly expanding industries, and a lower proportion is in declining industries. Also, by comparison with those who arrived earlier, recent immigrants are relatively over-represented in a larger number of rapidly expanding industries and in a smaller number of below-average growth or declining industries.

Male Immigrants

A larger absolute proportion of male immigrants than non-immigrants is located in rapidly expanding industries, and a marginally larger proportion of immigrants is also located in declining industries.

A higher absolute proportion of non-traditional than traditional male immigrants is located both in rapidly expanding and declining industries. Consistent with this, non-

traditional males are relatively over-represented in a larger number of both rapidly expanding and declining industries, compared to traditional males.

A larger proportion of recent male immigrants from non-traditional and traditional sources is located both in rapidly expanding and declining industries than is the case for earlier arrivals. However, the proportions in both types of industries are larger for non-traditional than for traditional immigrants. Compared to long-term immigrants, recent and intermediate non-traditional males are relatively over-represented in a larger number of rapidly expanding industries, but they are also over-represented in a larger number of below-average growth and declining industries. Recent and intermediate immigrants from traditional sources are over-represented in a larger number of rapidly expanding industries, but they are over-represented in a marginally smaller number of below-average growth or declining industries, compared to long-term arrivals.

Conclusion

The evidence in this paper provides only partial support for the structural change model of immigrant adaptation, which assumes that immigrants respond to changing economic systems and labour markets by entering those industries where the need for labour is greatest. As with the 1971 Census study by Richmond (Richmond and Zubrzycki, 1984), a number of other processes are at work, and other models of immigrant adaptation are also important in explaining the role of immigrants in the labour market.

However, there is a critically important distinction between the situation in 1971 and in 1986. In both years, immigrants were located both at the top and the bottom of the industrial ladder. In both years, a certain number of immigrants were to be found in the less desirable industries, such as clothing, leather and textiles. However, as McInnis (1980) pointed out, the latter were expanding industries at the time of the 1971 Census, and it could be argued that immigrants in these industries were indeed responding to labour needs, as postulated in Richmond's structural change model, and releasing non-immigrants who could then go to more desirable jobs. In 1986, however, these are declining industries, yet the proportion of immigrant women from non-traditional sources in the clothing industry, for example, is highest for recent arrivals.

It can be argued that industries such as clothing are special cases. As Seward (1990), Seward and McDade (1988) and Boyd (1987) have pointed out, immigrant women with no knowledge of French or English often have little choice but to work in the clothing industry where knowledge of an official language is not necessary. It is recognized, of course, that recent immigrants may improve their situation as they learn an official language, gain Canadian experience and perhaps pursue more education. Therefore, some caution must be exercised in comparing recent and earlier arrivals. Depending on one's perspective regarding the ultimate mobility of workers in such industries, either the functionalist assimilation or the neo-Marxist "reserve army" concepts assume relevance in explaining the higher proportions of recently arrived, non-traditional immigrant women in these industries.

However, there are broader concerns that cast doubt on the structural change model of immigrant adaptation. Based on the analysis in this paper, it is possible to conclude that immigrant women are not responding as effectively to changing labour markets as non-immigrant women. There are many possible explanations for this, including language problems, difficulties with recognition of credentials (McDade, 1988) and discrimination in the labour market. However, it is also true that the past two decades have been characterized by a rapidly increasing rate of female labour force participation, and that there may be competitive pressures within the female labour force that have restricted the mobility of immigrant women. At the same time, it should be stressed that both non-immigrant and immigrant women are responding more effectively than their male counterparts to the demand for labour in rapidly expanding industries, in view of the greater representation of females in the growing service sector.

The experience of more recently arrived immigrant women from non-traditional sources does not support the structural change model, whereas the evidence for recent immigrants from traditional sources does. This may be explained, in part, by the lower educational levels of recent arrivals from non-traditional sources compared to earlier arrivals. In the case of immigrant women from traditional sources, educational levels of recent arrivals are actually higher than those of earlier arrivals. Also, a higher proportion of recent arrivals from non-traditional sources than recent arrivals from traditional sources has no knowledge of French or English. This would tend to restrict the access of recent non-traditional immigrants to those rapidly growing service industries where a knowledge of the official languages is required.

There is more support for the structural change model in the case of male immigrants. They appear to be responding more effectively to labour needs in rapidly expanding industries than their non-immigrant counterparts. This is especially marked for immigrants from non-traditional sources, which is perhaps not surprising given the high educational levels of this group. A particularly interesting point is that the majority of both traditional immigrant males and non-immigrant males are in industries that were growing between 1971 and 1981, but at below-average rates. The key question is whether the skills of workers in these industries will be easily transferable to the growing service sector of the economy.

Interestingly, the Marr (1986) study, based on the occupational distribution of immigrants at the time of the 1981 Census, strengthens the case that there is only partial support for the structural change model of immigrant adaptation. Marr does not compare immigrants and non-immigrants, or immigrants from traditional and non-traditional sources. Also, he examines occupation rather than industry, and analyzes the male and female labour forces separately. These methodological differences make it difficult to draw direct comparisons between Marr's findings and those of this study. However, it is revealing that he finds that immigrant males do better than immigrant females in being over-represented in the fast-growing occupations, and that recent immigrants are least likely to be over-represented in these occupations.

The fact that there is only partial support for the structural change model of immigrant adaptation suggests that the assumptions often made regarding the role of immigrants in the labour force may be over-stated. Why is this so? Part of the reason, as

stated at the outset of this paper, is that Canadian immigration policy is not restricted to economic, and specifically labour market, objectives. Furthermore, as we have seen, the nature of immigration flows has changed considerably since the early 1970s, as reflected in the increasing proportion of family class and refugee class immigrants, who are not selected with specific reference to their suitability for the labour force.

What are the public policy implications of these findings? Before endeavouring to answer this question, it is important to make two observations. First, this study represents only the first phase of a larger project that will continue over the coming months. Therefore, some caution should be exercised in making conclusive suggestions for public policy. However, given the importance of immigration issues and the government's intention to undertake a review of its policies regarding future levels of immigration for the medium-term future, it is essential that research findings be brought to light and debated in a timely way. Second, it is essential to recognize the multiple objectives of immigration. As discussed above, the economic objective of immigration is not restricted to its role in the labour force and, particularly, its role in structural change. Moreover, there are also broader demographic, social and humanitarian objectives of immigration policy, which should be taken into consideration in the final determination of the nature and level of immigration.

Nonetheless, the role of immigrants in structural change is critically important. In a time of rapid structural change associated with such forces as technological advances and new trading patterns, including the Canada-U.S. Free Trade Agreement, it is critical that the labour force be highly adaptable and flexible. It is therefore worrisome and sobering to recognize that certain groups of immigrants, including many recent arrivals, are employed in declining parts of the economy. Equally serious is the fact that a relatively high proportion of recent immigrants from non-traditional sources and intermediate and long-term immigrants from traditional sources have only elementary education, which may pose special problems of labour adjustment for these groups.

If one accepts that the role of immigrants in structural change is important, there are two types of implications for public policy. First, the government can endeavour to be more selective in admitting immigrants who are suited to the changing labour market. Indeed, the current Conservative government is attempting to alter the balance among the economic, social and humanitarian objectives of immigration and to encourage a shift in favour of independent class immigrants. As we noted earlier, the proportion of independent class immigrants has recently begun to rise as the proportion of family class immigrants declines. However, it may be difficult to sustain these trends, since there is always a lag in the admission of family class immigrants after the arrival of independent immigrants, and Canada's commitment to family reunification is important. Also, refugee pressures are increasing in the international sphere, and Canada has humanitarian goals and obligations as well. There are approximately 12 to 13 million refugees in the world today, and increasing numbers may see Canada as a country of first asylum. While special visa requirements and new Canadian refugee legislation introduced in 1989 seek to control the numbers admitted, and have been condemned by some critics as being too harsh, the reality is that it may be difficult to predict future flows of refugees.

Given the difficulties of pursuing a highly selective immigration policy, a second, and indeed complementary, strategy would be to ensure that all immigrants have access to adequate labour adjustment programs designed to increase their mobility and effectiveness in the labour force. Previous research has pointed to the need to improve and expand language training and skills upgrading programs provided by the federal government (Seward and McDade, 1988; Seward, 1990; Boyd, 1987). Furthermore, the provision of literacy training and basic education would appear essential for immigrants with less than nine years of education (Seward, 1990). These labour adjustment programs, together with efforts to facilitate the recognition of foreign credentials and to remove discriminatory barriers to employment, would not only assist immigrants but would also improve the functioning of the labour market.

These issues assume particular importance at the present time, given the federal government's current policy of increasing immigration levels and its plan to review this policy prior to setting immigration levels for the first half of the 1990s. The findings of this paper suggest that the consideration of future immigration levels must take into account not only the potential economic benefits frequently associated with higher immigration levels, but also the potential difficulties of labour adjustment that may be faced by certain immigrant groups in the future. In particular, an explicit effort should be made to integrate immigration policy and labour adjustment policy, in order to ensure that the full potential of immigrants in the labour force is realized.

Notes

1. For a more detailed discussion of the economic and demographic role of immigration, see Seward (1987) and Seward (1988).

2. This categorization is reproduced in Beaujot, Basavarajappa and Verma (1988) and is re-categorized into three principal explanatory models in Michalowski (1987).

3. See, for example, Richmond in Richmond and Zubrzycki (1984); Beaujot, Basavarajappa and Verma (1988); Michalowski (1987).

4. The McInnis (1980) study was not designed specifically to test the "structural change" model, as defined by Richmond in Richmond and Zubrzycki (1984). Indeed, McInnis developed his own typology of models into a "traditional" model, which resembles the classical assimilation model, and a "new" model which emphasizes the role of immigrants in providing needed skills to high-skill industries. However, within this context, McInnis tests the Richmond and Kalbach (1980) hypothesis that immigrants tend to enter expanding industries, a central tenet of the "structural change" model.

5. While Marr (1986) does not state explicitly that his objective is to test Richmond's structural change model, and he analyzes occupation rather than industry, the study is nonetheless an important analysis of the extent to which immigrants respond to structural change.

6. At the time of conducting the analysis for this paper, adequate information was not available on industry employment growth for the period 1981 to 1986.

7. The concept of "expanding" and "declining" industries generally takes into consideration a range of economic indicators, including growth in output, growth in employment, growth in investment and rate of technological change. In this paper, which is concerned primarily with the demand for and supply of labour, a narrower definition is used. Thus, a declining industry is one where there has been negative growth in employment, i.e., actual employment losses. An expanding industry is one in which there has been positive growth. In this paper, rapidly expanding industries are those that have experienced above-average growth.

8. While overall immigration policy was non-expansionary during this 10-year period, it should be noted that the special arrangements for admission of the "boat people" refugees, particularly in 1980, brought overall immigration levels higher than they were in the "expansionary" years of 1971 and 1972.

9. The figures for independent class immigrants for 1986 and 1987 are somewhat misleading. More than 23,000 refugee claimants who were already in Canada were processed using an "administrative review" procedure, which was a considerably modified version of the points system used to select independent immigrants. While these immigrants have been classified within the independent class, it is important to recognize that they originally came to Canada claiming refugee status.

10. For a full discussion of refugee policy in the context of international refugee pressures, see Nash (1989).

11. Immigrants make up 18.4 percent of the total labour force and 18.5 percent of the total experienced labour force. The total labour force refers to the population age 15 and over who were either employed or unemployed during the week prior to Census enumeration. The total experienced labour force refers to persons in the total labour force who have worked since January 1, 1985. This definition excludes the long-term unemployed and those who have never worked.

12. According to the Council of Ministers of Education, Canada (1988), individuals with less than 9 years of education are considered "functionally illiterate," i.e., they "possess simple literacy abilities but at a level that is inadequate for the requirements of an industrialized, technological society" (CMEC 1988, 5). This, of course, is a broad definition and is not necessarily applicable in all cases.

13. Industries in which immigrants are "over-represented" are those where the proportion of immigrants is greater than the proportion of immigrants in the total experienced labour force. Industries in which immigrants are "heavily over-represented" are those in which the proportion of immigrants is at least 50 percent higher than the proportion of immigrants in the total experienced labour force. Thus, since the proportion of immigrants in the experienced labour force is 18.5 percent those industries in which immigrants are "over-represented" include those in which more than 18.5 percent of the experienced labour force is made up of immigrants; those industries in which immigrants are "heavily over-represented" include those where at least 27.8 percent of the labour force is made up of immigrants. This formula is calculated in various parts of this paper for each immigrant group (i.e., male, female, traditional, non-traditional).

    It should be emphasized that because of the nature of the "heavily over-represented" measure, only relatively small population groups can be heavily over-represented in particular industrial sectors. Thus, since non-immigrants represent

81.5 percent of the experienced labour force, it is not possible for them to be heavily over-represented, i.e., to make up 50 percent more than 81.5, or 122.25 percent of the labour force of an industry. Similarly, because non-traditional immigrants represent a smaller proportion of the total experienced labour force than traditional immigrants, it is easier for non-traditional immigrants to be heavily over-represented in particular industries. These limitations of the measure should be taken into consideration in the interpretation of findings.

14. It is important to examine both the absolute proportion and relative over-representation of immigrants in industries. The concept of over-representation, used alone, has limitations since this measure does not take into consideration the size of the labour force of the industry in which immigrants are over-represented. It makes a difference in absolute numbers whether immigrants are over-represented in relatively small or large industries. For example, while immigrant women represent about half the female labour force of the clothing industry, the clothing industry represents only 2 percent of the total female labour force.

15. See note 13.

Table 1
Immigrants to Canada, by Class of Admission, 1971-1988

Year	Family Class	Convention Refugees & Designated Classes	Independent & Assisted Relatives	Total
1971	33,450	--	88,450	121,900
1972	33,019	5,180	83,807	122,006
1973	41,677	2,359	140,164	184,200
1974	54,232	1,666	162,567	218,465
1975	64,124	5,566	118,191	187,881
1976	60,830	11,751	76,848	149,429
1977	51,355	7,300	56,259	114,914
1978	45,540	4,255	36,518	86,313
1979	46,763	27,879	37,454	112,096
1980	51,027	40,348	51,742	143,117
1981	51,017	14,979	62,622	128,618
1982	49,980	16,925	54,242	121,147
1983	48,698	13,967	26,492	89,157
1984	43,814	15,342	29,083	88,239
1985	38,514	16,760	29,028	84,302
1986	42,197	19,147	37,875	99,219
1987	53,598	21,565	76,935	152,098
1988[1]	51,120	26,599	83,529	161,248

Note: 1. Preliminary data, as of September 1989.

Source: Data for 1971-1984 extracted from Kerr (1986, Table 1); 1985 data extracted from Canada, Employment and Immigration (1987, Table IM9); 1986 data extracted from Canada, Employment and Immigration (1988a, Table IM9); 1987 data extracted from Canada, Employment and Immigration (1988b).

Table 2
Percentage Distribution of Immigrants to Canada, by Class of Admission, 1971-1988

Year	Family Class	Convention Refugees & Designated Classes	Independent & Assisted Relatives
1971	27.4	--	72.6
1972	27.1	4.2	68.7
1973	22.6	1.3	76.1
1974	24.8	0.1	75.1
1975	34.1	2.9	63.0
1976	40.7	7.9	51.4
1977	44.7	6.3	49.0
1978	52.8	5.0	42.2
1979	41.7	24.9	33.4
1980	35.7	28.2	36.1
1981	39.7	11.6	48.7
1982	41.3	14.0	44.7
1983	54.6	15.7	29.7
1984	49.7	17.4	32.9
1985	45.7	19.9	34.4
1986	42.5	19.3	38.2
1987	35.2	14.2	50.6
1988[1]	31.7	16.5	51.8

Note: 1. Preliminary data, as of September 1989.

Source: Table 1.

Table 3
Immigrants, by World Area of Last Permanent Residence, Canada 1971, 1976, 1981 and 1986

World Area of Last Permanent Residence[1]	1971		1976		1981		1986	
		% of total		% of total		% of total		% of total
Traditional Sources	76,379	62.7	67,412	45.1	56,172	43.7	29,807	30.0
North America	24,390	20.0	17,347	11.6	10,578	8.2	7,280	7.3
Southern Europe	23,805	19.5	15,328	10.3	7,832	6.1	4,428	4.5
Other Europe	28,184	23.1	34,737	23.2	37,762	29.4	18,099	18.2
Non-Traditional Sources	45,521	37.3	82,017	54.9	72,446	56.3	69,412	70.0
Asia	22,213	18.2	44,173	29.6	49,531	38.5	41,782	42.1
Africa	2,974	2.4	8,051	5.4	5,085	4.0	5,115	5.2
Caribbean & Bermuda	11,017	9.0	14,842	9.9	8,633	6.7	8,874	8.9
Central & South America	5,670	4.7	11,953	8.0	7,129	5.5	12,759	12.9
Oceania & Other	3,647	3.0	2,998	2.0	2,068[2]	1.6	882	0.9
Total	121,900	100.0	149,429	100.0	128,618	100.0	99,219	100.0

Notes: Totals may not add up to 100.0 per cent because of rounding.

1. The country composition of the given regions is not exactly the same as that used by Employment and Immigration Canada in its publications.
2. Includes 17 immigrants who were not identified with a given region.

Source: Data for 1971 extracted from Canada, Employment and Immigration (1972, Table 10); 1976 data extracted from Canada, Employment and Immigration (1978, Table 3); 1981 data extracted from Canada, Employment and Immigration (1983, Table 3); 1986 data extracted from Canada, Employment and Immigration (1988a, Table IM4).

Table 4.1
Crude and Age-Adjusted Percentage of Total Labour Force Age 15 and Over with Elementary Education and Some University Education by Place of Birth and Period of Immigration, Canada, 1986

	Elementary Education (Less than Grade 9)[1]		Some University Education	
	Crude	Age-Adjusted[2]	Crude	Age-Adjusted[2]
Total	10.1	10.1	23.4	23.4
Non-Immigrants	8.9	9.6	22.4	22.3
Immigrants	15.3	12.5	27.6	28.2
Traditional Sources				
Total	17.8	13.1	23.7	25.1
Long-Term (Before 1971)	19.4	12.0	22.2	25.4
Intermediate (1971-1980)	14.0	14.7	26.4	25.2
Recent (1981-1986)	7.0	8.5	36.1	34.0
1981-82	6.0	7.4	34.7	31.9
1983-84	7.7	9.2	37.6	35.6
1985-86	9.3	11.0	38.6	38.4
Non-Traditional Sources				
Total	10.3	10.7	35.8	34.5
Long-Term (Before 1971)	8.1	6.1	42.1	42.8
Intermediate (1971-1980)	9.7	11.3	34.2	31.9
Recent (1981-1986)	15.5	18.6	30.4	29.6
1981-82	14.7	17.5	30.6	29.7
1983-84	16.2	19.6	30.1	29.0
1985-86	15.9	19.6	30.5	29.8

Notes:
1. In this table, elementary education is defined as less than grade 9 education. It should be noted that, in the case of Quebec, for example, elementary education is currently defined as grades 1-6.
2. The age-adjusted percentages are calculated for each immigrant and non-immigrant group on the basis of the age structure of the *total* population.

Source: Special tabulations, 1986 Census.

Table 4.2
Crude and Age-Adjusted Percentage of Male Labour Force Age 15 and Over with Elementary Education and Some University Education by Place of Birth and Period of Immigration, Canada, 1986

	Elementary Education (Less than Grade 9)[1]		Some University Education	
	Crude	Age-Adjusted[2]	Crude	Age-Adjusted[2]
Total	11.8	11.8	23.6	23.6
Non-Immigrants	11.1	11.8	22.2	22.2
Immigrants	15.3	12.5	29.5	29.8
Traditional Sources				
Total	18.1	13.2	24.7	25.9
Long-Term (Before 1971)	19.6	12.1	23.4	26.2
Intermediate (1971-1980)	13.7	14.6	27.5	26.2
Recent (1981-1986)	7.5	8.9	37.7	35.7
1981-82	6.1	7.5	37.1	34.1
1983-84	8.4	9.5	39.0	37.7
1985-86	10.6	12.1	37.7	37.8
Non-Traditional Sources				
Total	9.0	9.6	40.0	38.5
Long-Term (Before 1971)	7.8	6.1	47.0	46.6
Intermediate (1971-1980)	8.1	9.7	38.1	35.6
Recent (1981-1986)	13.4	15.9	34.2	33.7
1981-82	13.0	15.1	34.5	34.0
1983-84	13.2	15.9	34.1	33.3
1985-86	14.8	17.5	33.7	33.5

Notes:
1. In this table, elementary education is defined as less than grade 9 education. It should be noted that, in the case of Quebec, for example, elementary education is currently defined as grades 1-6.
2. The age-adjusted percentages are calculated for each immigrant and non- immigrant group on the basis of the age structure of the *total male* population.

Source: Special tabulations, 1986 Census.

Table 4.3
Crude and Age-Adjusted Percentage of Female Labour Force age 15 and Over with Elementary Education and Some University Education by Place of Birth and Period of Immigration, Canada, 1986

	Elementary Education (Less than Grade 9)[1]		Some University Education	
	Crude	Age-Adjusted[2]	Crude	Age-Adjusted[2]
Total	7.8	7.8	23.1	23.1
Non-Immigrants	6.1	6.6	22.7	22.6
Immigrants	15.4	12.6	25.1	26.1
Traditional Sources				
Total	17.4	12.9	22.1	24.1
Long-Term (Before 1971)	19.0	11.8	20.4	24.4
Intermediate (1971-1980)	14.3	14.9	25.2	23.9
Recent (1981-1986)	6.4	8.1	34.2	31.5
1981-82	5.8	7.1	31.6	28.9
1983-84	6.8	9.0	35.9	32.9
1985-86	7.5	9.9	40.0	38.9
Non-Traditional Sources				
Total	11.8	12.1	30.7	29.7
Long-Term (Before 1971)	8.4	6.1	35.9	38.4
Intermediate (1971-1980)	11.5	13.0	29.7	27.6
Recent (1981-1986)	18.0	21.7	25.7	24.4
1981-82	16.9	20.0	25.9	24.5
1983-84	19.9	23.5	25.2	23.9
1985-86	17.5	22.1	26.3	24.5

Notes:
1. In this table, elementary education is defined as less than grade 9 education. It should be noted that, in the case of Quebec, for example, elementary education is currently defined as grades 1-6.
2. The age-adjusted percentages are calculated for each immigrant and non-immigrant group on the basis of the age structure of the *total female* population.

Source: Special tabulations, 1986 Census.

Table 5.1
Distribution and Percentage of Total Labour Force Age 15 and Over with No Knowledge of French or English, by Place of Birth and Period of Immigration, Canada, 1986

	Total Labour Force	Total Labour Force with no knowledge of English or French	
		#	%
Total	13,049,860	78,600	0.6
Non-Immigrants	10,648,850	3,910	0.0
Immigrants	2,401,005	74,690	3.1
Traditional Sources			
Total	1,617,135	37,225	2.3
Long-Term (Before 1971)	1,245,135	20,660	1.7
Intermediate (1971-1980)	288,105	11,705	4.1
Recent (1981-1986)	83,890	4,860	5.8
1981-82	47,270	1,535	3.2
1983-84	22,270	1,470	6.6
1985-86	14,350	1,855	12.9
Non-Traditional Sources			
Total	783,875	37,465	4.8
Long-Term (Before 1971)	230,530	4,620	2.0
Intermediate (1971-1980)	405,590	15,500	3.8
Recent (1981-1986)	147,755	17,340	11.7
1981-82	68,785	6,645	9.7
1983-84	49,580	5,875	11.8
1985-86	29,390	4,820	16.4

Source: Special tabulations, 1986 Census.

Table 5.2
Distribution and Percentage of Male Labour Force Age 15 and Over with No Knowledge of French or English, by Place of Birth and Period of Immigration, Canada, 1986

		Male Labour Force	Male Labour Force with no knowledge of English or French	
			#	%
Total		7,441,170	38,100	0.5
Non-Immigrants		6,057,140	2,510	0.0
Immigrants		1,384,025	35,590	2.6
Traditional Sources				
Total		955,170	18,980	2.0
Long-Term	(Before 1971)	748,275	10,445	1.4
Intermediate	(1971-1980)	160,465	5,730	3.6
Recent	(1981-1986)	46,430	2,810	6.1
1981-82		26,345	840	3.2
1983-84		11,925	770	6.5
1985-86		8,160	1,205	14.8
Non-Traditional Sources				
Total		428,860	16,610	3.9
Long-Term	(Before 1971)	128,630	1,880	1.5
Intermediate	(1971-1980)	218,420	6,555	3.0
Recent	(1981-1986)	81,815	8,175	10.0
1981-82		37,520	3,060	8.2
1983-84		27,460	2,595	9.5
1985-86		16,835	2,515	14.9

Source: Special tabulations, 1986 Census.

Table 5.3
Distribution and Percentage of Female Labour Force Age 15 and Over with No Knowledge of French or English, by Place of Birth and Period of Immigration, Canada, 1986

	Female Labour Force	Female Labour Force with no knowledge of English or French	
		#	%
Total	5,608,690	40,510	0.7
Non-Immigrants	4,591,710	1,405	0.0
Immigrants	1,016,980	39,100	3.8
Traditional Sources			
Total	661,965	18,245	2.8
Long-Term (Before 1971)	496,865	10,220	2.1
Intermediate (1971-1980)	127,640	5,975	4.7
Recent (1981-1986)	37,460	2,050	5.5
1981-82	20,925	695	3.3
1983-84	10,345	705	6.8
1985-86	6,190	650	10.5
Non-Traditional Sources			
Total	355,010	20,860	5.9
Long-Term (Before 1971)	101,895	2,740	2.7
Intermediate (1971-1980)	187,175	8,950	4.8
Recent (1981-1986)	65,940	9,170	13.9
1981-82	31,265	3,585	11.5
1983-84	22,120	3,280	14.8
1985-86	12,555	2,305	18.4

Source: Special tabulations, 1986 Census.

Table 6
Change in Employment by Industry, Canada, 1971-1981

	Employment 1971 (1)	Change in Employment 1971-1981 (2)	Percentage Change 1971-1981 (3)
	(Number of Persons)		
Primary Sector	703295	52036	7.4
Food & Beverages	220694	13666	6.2
Tobacco Products	9582	-901	-9.4
Rubber & Plastics	44928	16523	36.8
Leather Industries	28017	-1805	-6.4
Textile Industries	69487	-1898	-2.7
Knitting Mills	23948	-3437	-14.4
Clothing Industries	99516	-3363	-3.4
Wood Industries	93040	20053	21.6
Furniture & Fixtures	44580	9743	21.9
Paper & Allied Industries	119102	10714	9.0
Printing & Publishing	85862	22302	26.0
Primary Metal	112889	10665	9.4
Metal Fabricating	138992	20017	14.4
Machinery	71441	36964	51.7
Transportation Equipment	150597	27704	18.4
Electrical Products	123450	4385	3.6
Non-metallic Mineral Products	51925	3326	6.4
Petroleum & Coal Products	14056	7396	52.6
Chemical & Chemical Products	77445	10937	14.1
Miscellaneous Manufacturing	57971	8793	15.2
Construction	557774	129422	23.2
Transportation & Storage	376319	92099	24.5
Communications	144003	69357	48.2
Electric Power, Gas & Other Utilities	64523	32096	49.7
Wholesale Trade	343942	134382	39.1
Retail Trade	929854	431469	46.4
Finance, Insurance, Real Estate	336183	216626	64.4
Education & Health Services	77310	40409	52.3
Amusement & Recreation Services	45351	38715	85.4
Services to Business Management	267943	303322	113.2
Accommodation & Food Services	297922	215853	72.5
Other Personal & Miscellaneous Services	158600	131022	82.6
Total - All Industries	5940541	2098592	35.3

Note: Includes all industries in the Canadian business sector; excludes government administration, as well as public education and health. Based on 1970 Standard Industrial Classification.

Source: Columns (1) and (2) excerpted from Economic Council of Canada (1987, Table 3-1). Column (3) calculated by author. Primary sector is made up of 7 industries that were included in the original Economic Council of Canada table.

Table 7
Percentage Distribution of Total, Male and Female Experienced Labour Force Age 15 and Over by Category of Industry According to Level of Growth Between 1971 and 1981, for Given Places of Birth, Canada, 1986

Industries by Level of Growth[1]	Total Labour Force	Male Labour Force	Female Labour Force
		Non-Immigrants	
+ +	54.9	44.3	72.4
+	43.4	54.6	24.8
-	1.7	1.1	2.8
Total	**100.0**	**100.0**	**100.0**
		Immigrants	
+ +	54.3	47.1	65.9
+	40.6	50.5	24.5
-	5.1	2.4	9.6
Total	**100.0**	**100.0**	**100.0**
		Traditional Immigrants	
+ +	51.8	43.3	66.2
+	44.0	54.8	25.7
-	4.2	1.9	8.1
Total	**100.0**	**100.0**	**100.0**
		Non-Traditional Immigrants	
+ +	59.6	55.5	65.5
+	33.3	41.0	22.2
-	7.1	3.5	12.3
Total	**100.0**	**100.0**	**100.0**

Note: 1. The symbols for levels of growth should be interpreted as follows:
+ + = Industries with above-average growth (rapidly expanding industries).
+ = Industries with positive, below-average growth.
- = Industries with negative growth (declining industries).

Source: Table 6 and special tabulations, 1986 Census.

Table 8
Percentage Distribution of Total, Male and Female Non-Traditional Immigrant Experienced Labour Force Age 15 and Over by Category of Industry According to Level of Growth Between 1971 and 1981, for Given Periods of Immigration, Canada, 1986

Industries by Level of Growth[1]	Total Labour Force	Male Labour Force	Female Labour Force
		Long-Term Immigrants (Before 1971)	
++	61.2	55.4	70.5
+	35.2	42.8	23.0
-	3.6	1.8	6.5
Total	**100.0**	**100.0**	**100.0**
		Intermediate Immigrants (1971-1980)	
++	58.9	54.7	64.7
+	33.8	41.9	22.7
-	7.3	3.4	12.6
Total	**100.0**	**100.0**	**100.0**
		Recent Immigrants (1981-1986)	
++	59.5	57.9	61.7
+	29.4	36.1	20.3
-	11.1	6.0	18.0
Total	**100.0**	**100.0**	**100.0**

Note: 1. The symbols for levels of growth should be interpreted as follows:
++ = Industries with above-average growth (rapidly expanding industries).
+ = Industries with positive, below-average growth.
- = Industries with negative growth (declining industries).

Source: Table 6 and special tabulations, 1986 Census.

Table 9
Percentage Distribution of Total, Male and Female Traditional Immigrant Experienced Labour Force Age 15 and Over by Category of Industry According to Level of Growth Between 1971 and 1981, for Given Periods of Immigration, Canada, 1986

Industries by Level of Growth[1]	Total Labour Force	Male Labour Force	Female Labour Force
		Long-Term Immigrants (Before 1971)	
+ +	50.6	42.3	65.5
+	45.2	55.8	26.4
-	4.2	1.9	8.1
Total	**100.0**	**100.0**	**100.0**
		Intermediate Immigrants (1971-1980)	
+ +	55.1	46.7	67.8
+	40.5	51.7	23.7
-	4.4	1.6	8.5
Total	**100.0**	**100.0**	**100.0**
		Recent Immigrants (1981-1986)	
+ +	57.3	48.6	70.1
+	38.9	49.3	23.5
-	3.8	2.1	6.4
Total	**100.0**	**100.0**	**100.0**

Note: 1. The symbols for levels of growth should be interpreted as follows:
+ + = Industries with above-average growth (rapidly expanding industries).
+ = Industries with positive, below-average growth.
- = Industries with negative growth (declining industries).

Source: Table 6 and special tabulations, 1986 Census.

Table 10.1
Relative Over-Representation of Total Experienced Labour Force Age 15 and Over by Place of Birth, for Given Industries According to Rate of Growth Between 1971 and 1981, Canada, 1986

		Immigrants		
	Non-Immigrants (81.5% of Total Labour Force)	Total (18.5% of Total Labour Force)	Traditional (12.5 % of Total Labour Force)	Non-Traditional (6.0% of Total Labour Force)
	Growth Rate (%)			
Industries with Above-Average Growth (Rapidly Expanding Industries)				
Business Services	113.2	20.8	13.7	7.1
Amusement & Recreational Services	85.4	85.6		
Personal & Other Services	82.6	21.6	14.5	7.1
Accommodation & Food Services	72.5	22.4		10.2*
Finance, Insurance, Real Estate	64.4	19.4		7.1
Petroleum & Coal Products	52.6	82.7		
Machinery	51.7	28.9*	21.3*	7.6
Electrical Power, Gas & Other Utilities	49.7	85.0		
Retail Trade	46.4	83.7		
Wholesale Trade	39.1	82.9		
Rubber & Plastic Products	36.8	25.7	14.4	11.3*
Industries with Positive, Below-Average Growth				
Transportation, Storage & Communications	31.0	86.1		
Printing & Publishing	26.0	81.6		6.3
Construction	23.2	19.7	17.2	
Furniture & Fixtures	21.9	35.3*	21.0*	14.3*
Wood	21.6	84.1		6.5
Transportation Equipment	18.4	28.3*	20.3*	8.0
Other Manufacturing	15.2	31.7*	19.2*	12.5*
Fabricated Metal Products	14.4	30.9*	21.9*	9.0*
Chemical & Chemical Products	14.1	21.3	14.0	7.4
Primary Metal	9.4	22.1	18.1	
Paper & Allied Products	9.0	86.9		
Primary Sector	7.4	89.0		
Non-metallic Mineral Products	6.4	19.4	14.9	
Food, Beverage & Tobacco Products	5.5	82.5		
Electrical & Electronic Products	3.6	30.1*	18.2	11.9*
Industries with Negative Growth (Declining Industries)				
Clothing	-3.4	48.9*	25.8*	23.0*
Textile Industries	-5.7	25.9	14.8	11.0*
Leather Products	-6.4	36.1*	24.3*	11.8*

Notes: Industry growth data are based on 1970 Standard Industrial Classification, and refer to employment, while data on immigrants are based on 1980 Standard Industrial Classification, and relate to the experienced labour force. Also, there are some small differences in the two data sets in the definitions of particulr industries. Therefore, the two sets of information are not strictly comparable.

In some cases, it has been necessary to combine industries. This is obvious in most cases from the titles of the industry groups. Textile industries include primary textiles, textile products and knitting.

* The presence of an asterisk indicates industries in which immigrants are *heavily* over-represented (see endnote 13).

Source: Table 6 and special tabulations, 1986 Census.

Table 10.2
Relative Over-Representation of Male Experienced Labour Force Age 15 and Over by Place of Birth, for Given Industries According to Rate of Growth Between 1971 and 1981, Canada, 1986

		Immigrants		
	Non-Immigrants (81.3% of Male Labour Force)	Total (18.7% of Male Labour Force)	Traditional (13.0 % of Male Labour Force)	Non-Traditional (5.7% of Male Labour Force)
	Growth Rate (%)			
Industries with Above-Average Growth (Rapidly Expanding Industries)				
Business Services	113.2	22.4	14.8	7.6
Amusement & Recreational Services	85.4	84.9		
Personal & Other Services	82.6	22.5	15.4	7.1
Accommodation & Food Services	72.5	29.1*	14.3	14.8*
Finance, Insurance, Real Estate	64.4	20.6	13.8	6.9
Petroleum & Coal Products	52.6	83.1		
Machinery	51.7	30.1*	22.2*	7.9
Electrical Power, Gas & Other Utilities	49.7	84.4		
Retail Trade	46.4	83.5		6.1
Wholesale Trade	39.1	83.6		
Rubber & Plastic Products	36.8	23.4	13.3	10.0*
Industries with Positive, Below-Average Growth				
Transportation, Storage & Communications	31.0	86.0		
Printing and Publishing	26.0	81.3		6.3
Construction	23.2	20.0	17.6	
Furniture & Fixtures	21.9	34.5*	19.7*	14.8*
Wood	21.6	83.9		6.8
Transportation Equipment	18.4	28.2*	20.6*	7.6
Other Manufacturing	15.2	30.8*	18.4	12.4*
Fabricated Metal Products	14.4	31.4*	22.3*	9.2*
Chemical & Chemical Products	14.1	20.3	13.8	6.5
Primary Metal	9.4	22.4	16.5	
Paper & Allied Products	9.0	87.8		
Primary Sector	7.4	90.3		
Non-metallic Mineral Products	6.4	19.3	15.0	
Food, Beverage & Tobacco Products	5.5	83.4		
Electrical & Electronic Products	3.6	30.1*	18.2	12.0*
Industries with Negative Growth (Declining Industries)				
Clothing	-3.4	46.8*	25.3*	21.5*
Textile Industries	-5.7	21.5*		10.1*
Leather Products	-6.4	33.7*	20.3*	13.3*

Notes: Industry growth data are based on 1970 Standard Industrial Classification, and refer to employment, while data on immigrants are based on 1980 Standard Industrial Classification, and relate to the experienced labour force. Also, there are some small differences in the two data sets in the definitions of particulr industries. Therefore, the two sets of information are not strictly comparable.

In some cases, it has been necessary to combine industries. This is obvious in most cases from the titles of the industry groups. Textile industries include primary textiles, textile products and knitting.

* The presence of an asterisk indicates industries in which immigrants are *heavily* over-represented (see endnote 13).

Source: Table 6 and special tabulations, 1986 Census.

Table 10.3
Relative Over-Representation of Female Experienced Labour Force Age 15 and Over by Place of Birth, for Given Industries According to Rate of Growth Between 1971 and 1981, Canada, 1986

		Immigrants		
	Non-Immigrants (81.5% of Female Labour Force)	Total (18.2% of Female Labour Force)	Traditional (11.9% of Female Labour Force)	Non-Traditional (6.3% of Female Labour Force)
	Growth Rate (%)			
Industries with Above-Average Growth (Rapidly Expanding Industries)				
Business Services	113.2	18.7	12.4	6.3
Amusement & Recreational Services	85.4	86.5		
Personal & Other Services	82.6	21.0	13.9	7.1
Accommodation & Food Services	72.5	82.2		7.2
Finance, Insurance, Real Estate	64.4	18.5		7.2
Petroleum & Coal Products	52.6	18.8		7.2
Machinery	51.7	22.3	16.4	
Electrical Power, Gas & Other Utilities	49.7	87.6		
Retail Trade	46.4	83.8		
Wholesale Trade	39.1	18.9	12.5	6.4
Rubber & Plastic Products	36.8	31.6*	17.1	14.5*
Industries with Positive, Below-Average Growth				
Transportation, Storage & Communications	31.0	86.4		
Printing and Publishing	26.0	82.0		6.3
Construction	23.2	83.2	13.9	
Furniture & Fixtures	21.9	38.3*	25.4*	12.9*
Wood	21.6	85.5		
Transportation Equipment	18.4	28.5*	19.0*	9.5*
Other Manufacturing	15.2	33.1*	20.3*	12.8*
Fabricated Metal Products	14.4	28.4*	19.9*	8.5
Chemical & Chemical Products	14.1	23.6	14.3	9.3
Primary Metal	9.4	18.6	14.1	
Paper & Allied Products	9.0	18.7	13.5	
Primary Sector	7.4	84.8		
Non-metallic Mineral Products	6.4	19.9	14.2	
Food, Beverage & Tobacco Products	5.5	19.3	12.8	6.5
Electrical & Electronic Products	3.6	30.1*	18.2*	11.9*
Industries with Negative Growth (Declining Industries)				
Clothing	-3.4	49.5*	26.0*	23.5*
Textile Industries	-5.7	31.9*	19.5*	12.3*
Leather Products	-6.4	37.8*	27.0*	10.8*

Notes: Industry growth data are based on 1970 Standard Industrial Classification, and refer to employment, while data on immigrants are based on 1980 Standard Industrial Classification, and relate to the experienced labour force. Also, there are some small differences in the two data sets in the definitions of particular industries. Therefore, the two sets of information are not strictly comparable.

In some cases, it has been necessary to combine industries. This is obvious in most cases from the titles of the industry groups. Textile industries include primary textiles, textile products and knitting.

* The presence of an asterisk indicates industries in which immigrants are *heavily* over-represented (see endnote 13).

Source: Table 6 and special tabulations, 1986 Census.

Table 11.1
Relative Over-Representation of Total Traditional and Non-Traditional Immigrant Experienced Labour Force Age 15 and Over by Period of Immigration, for Given Industries According to Rate of Growth Between 1971 and 1981, Canada, 1986

	Growth Rate (%)	Traditional (100%)			Non-Traditional (100%)		
		Long-Term (77.1%)	Inter-mediate (17.8%)	Recent (5.1%)	Long-Term (29.7%)	Inter-mediate (51.9%)	Recent (18.4%)
Industries with Above-Average Growth (Rapidly Expanding Industries)							
Business Services	113.2		19.2	7.1	33.0		
Amusement & Recreational Services	85.4		23.2	7.3	34.6		
Personal & Other Services	82.6		20.8	7.9*			28.9*
Accommodation & Food Services	72.5		24.9	7.0			26.0
Finance, Insurance, Real Estate	64.4	79.3			30.9	57.2	
Petroleum & Coal Products	52.6		21.0		42.0		
Machinery	51.7		19.6	6.5		61.7	
Electrical Power, Gas & Other Utilities	49.7	84.7			48.7*		
Retail Trade	46.4	77.4	17.9			54.2	18.6
Wholesale Trade	39.1	78.0					19.2
Rubber & Plastic Products	36.8		20.5	6.8		56.0	29.2*
Industries with Positive, Below-Average Growth							
Transportation, Storage & Communications	31.0	83.0			39.1		
Printing & Publishing	26.0	77.4		5.1		55.6	
Construction	23.2	79.0			32.9		
Furniture & Fixtures	21.9		18.0	6.6		54.5	33.6*
Wood	21.6	77.7	18.4		36.7		
Transportation Equipment	18.4	77.8		5.2		60.0	19.4
Other Manufacturing	15.2		19.2	6.8		56.0	24.6
Fabricated Metal Products	14.4		18.4	5.7		58.6	21.4
Chemical & Chemical Products	14.1	77.3		5.8		57.9	
Primary Metal	9.4	83.9				56.7	
Paper & Allied Products	9.0	83.8			34.9	52.4	
Primary Sector	7.4	77.5		6.0			23.6
Non-metallic Mineral Products	6.4	80.7					21.4
Food, Beverage & Tobacco Products	5.5		19.0			55.6	18.8
Electrical & Electronic Products	3.6		18.5	5.9		58.3	
Industries with Negative Growth (Declining Industries)							
Clothing	-3.4	77.8	17.9			54.5	32.4*
Textile Industries	-5.7		18.2	5.8		54.9	30.2*
Leather Products	-6.4		26.4	5.7		59.0	31.6*

Notes: Industry growth data are based on 1970 Standard Industrial Classification, and refer to employment, while data on immigrants are based on 1980 Standard Industrial Classification, and relate to the experienced labour force. Also, there are some small differences in the two data sets in the definitions of particular industries. Therefore, the two sets of information are not strictly comparable.

In some cases, it has been necessary to combine industries. This is obvious in most cases from the titles of the industry groups. Textile industries include primary textiles, textile products and knitting.

* The presence of an asterisk indicates industries in which immigrants are *heavily* over-represented (see endnote 13).

Source: Table 6 and special tabulations, 1986 Census.

Table 11.2
Relative Over-Representation of Male Traditional and Non-Traditional Immigrant Experienced Labour Force Age 15 and Over by Period of Immigration, for Given Industries According to Rate of Growth Between 1971 and 1981, Canada, 1986

	Traditional (100%)			Non-Traditional (100%)		
	Long-Term (78.4%)	Inter-mediate (16.8%)	Recent (4.8%)	Long-Term (30.3%)	Inter-mediate (51.0%)	Recent (18.7%)
	Growth Rate (%)					
Industries with Above-Average Growth (Rapidly Expanding Industries)						
Business Services	113.2		18.7	7.2*	33.9	
Amusement & Recreational Services	85.4		23.9	6.7	36.4	19.1
Personal & Other Services	82.6		18.5	6.8	51.1	26.4
Accommodation & Food Services	72.5		25.5*	6.8		27.0
Finance, Insurance, Real Estate	64.4	80.8		32.6	54.5	
Petroleum & Coal Products	52.6		21.4	40.0	52.6	
Machinery	51.7		19.9	6.2	62.9	
Electrical Power, Gas & Other Utilities	49.7	85.3		51.8*		
Retail Trade	46.4		17.3		53.9	20.0
Wholesale Trade	39.1	78.7		4.9	51.5	18.8
Rubber & Plastic Products	36.8		18.4	6.7	54.2	28.9*
Industries with Positive, Below-Average Growth						
Transportation, Storage & Communications	31.0	83.9		38.1	52.3	
Printing & Publishing	26.0	78.6			53.0	
Construction	23.2	78.7	17.1	33.0		
Furniture & Fixtures	21.9		17.2	6.5	52.5	35.9*
Wood	21.6		18.0	37.4		
Transportation Equipment	18.4	79.0		4.9	59.4	
Other Manufacturing	15.2		18.1	7.6*	54.3	24.2
Fabricated Metal Products	14.4		18.7	6.0	58.6	21.3
Chemical & Chemical Products	14.1	78.7		5.1	57.8	
Primary Metal	9.4	83.9			56.9	
Paper and Allied Products	9.0	84.3		36.5	52.2	
Primary Sector	7.4			5.7	31.2	21.6
Non-metallic Mineral Products	6.4	81.2				22.0
Food, Beverage & Tobacco Products	5.5		17.6		56.5	19.2
Electrical & Electronic Products	3.6		18.4	6.0	58.0	
Industries with Negative Growth (Declining Industries)						
Clothing	-3.4	82.8			51.1	34.7*
Textile Industries	-5.7			7.9*		33.9*
Leather Products	-6.4		20.4		57.7	33.4*

Notes: Industry growth data are based on 1970 Standard Industrial Classification, and refer to employment, while data on immigrants are based on 1980 Standard Industrial Classification, and relate to the experienced labour force. Also, there are some small differences in the two data sets in the definitions of particular industries. Therefore, the two sets of information are not strictly comparable.

In some cases, it has been necessary to combine industries. This is obvious in most cases from the titles of the industry groups. Textile industries include primary textiles, textile products and knitting.

* The presence of an asterisk indicates industries in which immigrants are *heavily* over-represented (see endnote 13).

Source: Table 6 and special tabulations, 1986 Census.

Table 11.3
Relative Over-Representation of Female Traditional and Non-Traditional Immigrant Experienced Labour Force Age 15 and Over by Period of Immigration, for Given Industries According to Rate of Growth Between 1971 and 1981, Canada, 1986

		Traditional (100%)			Non-Traditional (100%)	
	Long-Term (75.3%)	Inter-mediate (19.2%)	Recent (5.6%)	Long-Term (29.1%)	Inter-mediate (52.9%)	Recent (18.0%)
	Growth Rate (%)					
Industries with Above-Average Growth (Rapidly Expanding Industries)						
Business Services	113.2	20.0	6.9	31.6	53.1	
Amusement & Recreational Services	85.4	22.4	8.0	31.6	54.0	
Personal & Other Services	82.6	22.6	8.7*			30.6*
Accommodation & Food Services	72.5	24.4	7.1		54.0	24.6
Finance, Insurance, Real Estate	64.4	78.1		29.8	58.9	
Petroleum & Coal Products	52.6	19.5	7.8	45.0*		
Machinery	51.7		7.8		54.7	19.9
Electrical Power, Gas & Other Utilities	49.7	81.2		36.3	57.2	
Retail Trade	46.4	76.9			54.7	
Wholesale Trade	39.1	76.6				20.0
Rubber & Plastic Products	36.8	24.4	6.8		59.2	29.4*
Industries with Positive, Below-Average Growth						
Transportation, Storage & Communications	31.0	79.9		42.0		
Printing & Publishing	26.0	75.8	5.9		59.2	
Construction	23.2	81.5		32.8		
Furniture & Fixtures	21.9	20.2	6.7		62.1	24.9
Wood	21.6	21.1			54.9	18.0
Transportation Equipment	18.4	21.0	6.7		62.0	24.7
Other Manufacturing	15.2	20.8	5.8		58.5	25.2
Fabricated Metal Products	14.4	79.1			58.6	21.8
Chemical & Chemical Products	14.1		7.5		58.0	
Primary Metal	9.4	83.1		32.0	55.3	
Paper & Allied Products	9.0	82.1		29.4	53.6	
Primary Sector	7.4	75.4	6.8			26.3
Non-metallic Mineral Products	6.4	78.5			54.5	19.1
Food, Beverage & Tobacco Products	5.5	21.6			54.5	18.1
Electrical & Electronic Products	3.6	75.5	5.6		58.9	21.1
Industries with Negative Growth (Declining Industries)						
Clothing	-3.4	76.3	19.4		55.5	31.7*
Textile Industries	-5.7	20.9			60.4	25.9
Leather Products	-6.4	29.4*			60.2	30.1*

Notes: Industry growth data are based on 1970 Standard Industrial Classification, and refer to employment, while data on immigrants are based on 1980 Standard Industrial Classification, and relate to the experienced labour force. Also, there are some small differences in the two data sets in the definitions of particulr industries. Therefore, the two sets of information are not strictly comparable.

In some cases, it has been necessary to combine industries. This is obvious in most cases from the titles of the industry groups. Textile industries include primary textiles, textile products and knitting.

* The presence of an asterisk indicates industries in which immigrants are *heavily* over-represented (see endnote 13).

Source: Table 6 and special tabulations, 1986 Census.

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Present Conditions of Globalized Private Enterprise in Canada

Guy P.F. Steed, Director of Programs
Science Council of Canada
and
Geraldine Kenney-Wallace, Chairman
Science Council of Canada

Introduction

Canada is a prosperous country with an enviable standard of living. The Canadian economy has been booming for the past six years and our index of growth in industrial production during the 1980s ranks with Japan's at the top of the seven major industrial countries (Table 1).

Canada's larger enterprises are showing greater confidence these days, corporate profits are high and Canadian businessmen are looking increasingly outward. A measure of that confidence in recent years is the high level of investment in machinery and equipment and long-term capital projects. Much of that spending is for long-term projects or to gear up quickly in response to new opportunities arising from the freshly signed Canada-U.S. Free Trade Agreement.

Confidence should not lead to complacency, however. Canadian business was badly shaken by the depths to which it plummeted in the recession of seven years ago. It has bounced back well, but Canada still tends towards a boom-bust economy, very sensitive to global conditions and especially to volatility in resource commodity markets (Kenney-Wallace/Mustard, 1988).

Canada's prosperity has long been built on the abundance of its endowment in its natural resource sectors—agriculture, fisheries, forestry, mining, oil and gas. It has had a strong capacity to compete in the international marketplace in supplying those resources, largely unprocessed, to satisfy a seemingly insatiable world appetite. But the ability to sustain Canadian prosperity on that base is seriously eroding and many Canadians are increasingly concerned as to whether the veneer of prosperity conceals

serious structural weaknesses and vulnerability (see Canadian Institute for Advanced Research, 1988; Canadian Manufacturers' Association, 1987; Steed, *Not a Long Shot . . .*, 1989; and Kenney-Wallace/Mustard, 1988).

Table 1
G-7 Industrial Production Index, 1980 = 100

	Canada	Japan	U.S.	U.K.	France	W.G.	Italy
1984	111	114	112	102	99	99	96
1985	116	119	114	108	100	103	97
1986	118	118	115	110	100	105	100
1987	122	122	119	114	102	105	103

Source: OECD, *Indicators of Industrial Activity, 1988.*

The main message from Canadian leaders at the January 1988 National Conference on Technology and Innovation, chaired by the Prime Minister, was simple: Canadian industry is ill-prepared for the testing new conditions of the intensified, technology-driven global competition of the 1990s; but the sizable difficulties should be surmountable, given the right climate and leadership (Kenney-Wallace, 1989).

Confronted by new conditions of global competition, heavily driven by the power of modern science and technology to rapidly disrupt previous competitive advantages, significantly alter national economies and modify international relations, Canadians are debating how best to adjust to win (Kenney-Wallace/Mustard, 1988); and which areas deserve priority attention in the attempt to harness our strengths, sustain our vigorous growth and provide wealth for Canadian society in future years (Advisory Council on Adjustment, 1989; Canadian Institute for Advanced Research, 1988; Canadian Manufacturers' Association, 1987).

The forces contributing to globalization are expected to combine with the effects of the Canada-U.S. Free Trade Agreement to open new opportunities and raise the intensity of competition for Canadian enterprises (Rule, 1988). Four factors stand out:

- increased competition in Canada from U.S.-based firms;
- new offshore competitors from Europe, Japan and the newly industrialized economies of the Pacific Rim entering the North American market;
- heightened bargaining power of buyers in Canada, expanding their sourcing of materials, parts and components from the U.S.; and
- shortened product life cycles as new technologies and substitute products are more readily transferred to Canada.

In the face of these forces, the overriding concern of Canadian-based enterprises must be to develop strategies in the context of developments in the global marketplace. And for knowledge-intensive firms, with huge fixed costs for research and development (R&D), manufacturing and marketing success depends heavily on access to large, if not global, markets to spread those costs over large volumes.

The intent of our paper is to provide some perspective on the present conditions of globalized private enterprise in Canada. A Canadian perspective is in several respects distinctive, particularly given the resource-based strength of much Canadian enterprise and the extent of foreign ownership of assets in Canada. In tackling our task we shall offer perspectives at broad, aggregate levels, as well as particular examples, to illustrate various situations in a range of industries. We begin by focusing on aspects of globalization and Canadian-based enterprise, including ownership and production, exporting and sourcing. We then turn to how Canadian enterprise is adjusting, and is being advised to adjust, in its attempt to win on the fronts of science and technology and intellectual property; and how governments are incorporating some explicit science and technology dimensions in adjustment policies, attempting to keep up with the rapid pace of contemporary global business. In this discussion we note some bases for concern and some areas of conflict and contention.

Globalization and Canadian-Based Enterprise

Foreign Ownership

An important feature of increasing globalization is direct foreign investment, with large business enterprises becoming increasingly international. Canada is both source and destination for a small but significant portion of the cross-investments occurring, as the world's largest multinationals from Europe, North America and the Pacific Rim aggressively target and penetrate markets in a complex web of competition, takeover, joint research, licensing agreements and strategic alliances.

A high proportion of Canadian-based industrial enterprise has long been foreign-owned (Kenney-Wallace/Mustard, 1988). In 1985 the share of all industries (excluding financial) under foreign control was 29 percent when measured by sales and 23 percent when measured by assets. For manufacturing it was 49 percent of sales and 42 percent of assets; and for mining it was 48 percent of sales and 32 percent of assets.

The United States was the dominant country of origin, accounting for 73 percent of foreign direct investment in Canada in 1986. That was a decline, however, of about 6 percent from a decade earlier. Japan meantime has rapidly established a foothold, raising its contribution from 0.7 percent in 1975 to 2.6 percent in 1986. West European-based multinational enterprises (MNEs) have also been increasing their share of direct foreign investment in Canada (Table 2). Furthermore, in anticipation of the improved access to the U.S. market under the Free Trade Agreement, Canadian governments have been strongly soliciting new direct foreign investment.

Table 2
Stock of Foreign Direct Investment in Canada by Area of Ownership - 1975 and 1986 (in %)

	1975	1986
United States	79.3	73.2
Japan	0.7	2.6
United Kingdom	9.7	10.8
France	1.4	1.8
West Germany	1.6	2.9
The Netherlands	1.8	2.6

Source: Statistics Canada, *Canada's International Investment Position: 1986*. Cat. 67-202, Ottawa 1989.

One Canadian industry which has been subject to recent significant shifts in ownership is the important forest product sector. Its top ranks have been dramatically restructured, with two major foreign-owned corporations (Stone Container of Chicago and Fletcher Challenge of New Zealand) now among Canada's six largest players. It has also gained a significant Pacific Rim component through Japanese investment in British Columbia and Alberta, and South Korean investment to build a northern Ontario pulp mill (Table 3).

Table 3
Foreign Presence in Canadian Forest Products

Owner	Asset
Stone Container (U.S.)	100% Consolidated-Bathurst Inc.
Daishowa Paper (Japan)	100% Reed Inc. 100% Alberta Pulp Mill 50% Quesnel River Pulp Co.
Oji Paper (Japan)	50% Howe Sound Pulp & Paper Co.
Fletcher Challenge (N.Z.)	100% Crown Forest Industries Ltd. 69% British Columbia Forest Products Ltd.
Shin Ho Group (Korea)	100% Ontario Pulp Mill

Source: *Financial Post*, January 30, 1989, p. 5

One notable feature of the globalization process occurring in Canada is the foreign takeover of enterprising, mid-sized, knowledge-intensive, Canadian-owned firms. Those firms are sometimes called "threshold firms" because they have a high degree of exports and show promise for rapid growth to become leading, albeit small, multinationals (Steed, 1982). Many of these promising firms falter, however, in their path to becoming truly world scale. They appear strong in a Canadian context, but are frequently all too fragile when they require greater access to capital and markets and are confronted with competition from multinational giants.

Some provincial governments, notably Ontario, are attempting to focus special industrial development efforts to improve the competitive strength of threshold firms (The Premier's Council of Ontario, 1988). But the growth path of many has been one of friendly takeover by foreign multinationals. Examples in recent years include de Havilland Aircraft by Boeing, Mitel by British Telecom and Leigh Instruments by the British firm Plessey. Two 1989 examples are the sale of Lumonics, a Canadian threshold firm that has grown to become the third-largest laser and opto-electronics company in the world, to Sumitomo of Japan; and the sale of Connaught Biosciences to a French firm, Institut Mérieux. Canada is finding it hard to build high-technology firms with world scale research, manufacturing and marketing capabilities and keep them Canadian (Table 4).

Table 4
Threshold Firm Takeovers: Some Examples

De Havilland Aircraft	by	Boeing (U.S.)
Mitel	by	British Telecom (Britain)
Leigh Instruments	by	Plessey (Britain)
Lumonics	by	Sumitomo (Japan)
Versatile Farm Equipment	by	Ford Motor (U.S.)

Source: Author

The extent of foreign ownership remains contentious in Canada. A distinctive and recent example comes from senior business leaders in Quebec. Several have expressed concern that Quebec might lose control of its economic destiny. They have called for concerted action by Quebec financial and industrial companies, investment funds and government officials to fight off foreign acquisitors. The sense of vulnerability is revealed in the following comment by Jean Campeau, the influential president of Quebec's giant pension fund. He said "We have recently lived through mergers and acquisitions that have shaken Quebeckers, and the threat is growing graver because of the globalization of world markets and the rapid expansion of giant multinational conglomerates." (Marcotte, 1989) His call to arms involves, on the one hand, business and government preparing to

come to the rescue of takeover targets in strategic industries; and on the other, where opportunity arises, to launch takeovers of foreign companies.

Canadian-owned Industrial MNEs

Canadian-owned industrial MNEs tend to be rather small compared to the giants from other countries and are generally distinctive in that most are resource-based and engaged in the harvesting, processing and marketing of resource-based product lines. They tend to have strong global marketing networks and to be vertically integrated, with fewer and fewer revenues derived from sales of raw product, and increased emphasis on adding value in processing and manufacturing (Rugman, 1988; Rugman/McIlveen, 1985). Firms such as Alcan in aluminum, Inco in nickel, Abitibi-Price in newsprint, McCain Foods in French fries, and Polysar in synthetic rubber and rubber latex are world leaders in their main product lines. Among the few non-resource-based, Canadian-owned industrial MNEs, two that are prominent as world leaders in areas of advanced technology are Northern Telecom, North America's second largest producer of telecommunications equipment, and Moore Corporation, the world's largest producer of business forms.

Few of these Canadian-owned industrial MNEs have production facilities outside North America, the main exceptions being Alcan, McCain, Northern Telecom and Varity (the former Massey-Ferguson). Canada's MNEs are, however, becoming increasingly international, if not global, in their production orientation, as the upsurge in growth of the stock of Canadian direct investment abroad reveals (Rugman, 1987). Among the most significant acquisitions is that of a major share of Du Pont in the U.S. by Seagrams, the world's largest producer of distilled spirits and wine; and STC in Britain by Northern Telecom.

Canada's MNEs are also participating in the global movement towards strategic alliances and joint ventures. An interesting and complex example of one such joint venture is that just signed by Canadian-owned, Toronto-based, but American-headquartered (Hanover, N.H.), AMCA International. AMCA is a diversified industrial equipment manufacturer, vertically integrated in the design, construction, marketing, and financing of its products and facilities. It has entered into a U.S. $1 billion joint venture with a group in the USSR to produce styrene plastics and ethylene derivatives at a petro-chemical plant. The two main AMCA units involved are based in France and the U.S. (Houston).

Global Exporting and Sourcing

The Canada-U.S. Free Trade Agreement, the globalizing of many industries, and the new Europe of 1992 are each placing significant pressures on Canadian enterprises to review their export mentalities (Farrow/Rugman, 1988; McFetridge, 1989). For Canada, the

need is to move beyond the prevailing dependence in recent years on the traditional export of natural resource commodities and automobiles. However, this will not be easy to achieve as international competition in higher value-added goods is becoming particularly intense at the same time that export markets for basic resources are less secure. The pressure is to establish and exploit global niche markets relating increasingly to Canadian skills, as opposed to natural endowments, and to diminish the high dependence on the American market, which takes three-quarters of Canadian exports.

Canada's larger companies are being pressed, for instance, to invest in Europe, both to take particular advantage of the post-1992 environment and to avoid the danger of barriers and discrimination in areas such as technology standards, government procurement, or rules of origin. The concern is not only to obtain and secure market access but, as a French financier Bernard Esambert has argued, to take advantage of the scientific research available in the different countries of Europe (Crane, 1989).

Canada's main players on the global trade scene are few in number. As in many other leading industrial countries, a core group of about 50 firms dominates trade (Rugman, 1988). Canada's 50 largest exporters account for just over one-half of its total exports. And as much as 70 percent of Canada-U.S. trade is dominated by multinational enterprises, most of it by 40 companies driven by increasingly global competitive strategies. Much of Canada's trade, especially in the leading area of automobiles and parts, is intra-firm and intra-industry trade.

With the disappearance of trade barriers and the challenge of new technologies, many Canadian firms are responding by specializing to obtain scale economies, moving up the value-added chain and investing to penetrate new markets or hold existing ones. Some are rationalizing by assigning their Canadian plants to cope with a complex product range, a strategy requiring flexibility and substantial investment in people (for example, Litton's production of inertial navigation systems). Among the U.S.-owned companies in Canada, when compared with their operations elsewhere in their global network, there are indications that Canada's share of employment has increased in those very industries where world trade is expanding and where R&D activity is important.

Another feature of globalization is the trend towards global sourcing. Technological advances are forging new relationships between large companies and their suppliers. The short time available to get a product to market increasingly requires that the supplier be involved as early as possible, even at the design stage.

One very important example for Canada of global sourcing concerns automotive parts. The big North American vehicle producers, as part of their scramble for strategic positioning and cost reduction, are sourcing more and more parts and vehicles from independent suppliers—from Japan, from low-cost developing countries and from their own overseas affiliates. Canadian imports of automotive parts from areas outside North America have been surging. The vehicle manufacturers are also transferring R&D functions and responsibilities to parts suppliers.

A different sort of example comes from the information technology sector. Canada's bigger information technology firms are seeking to help themselves by supporting programs to strengthen their suppliers, helping them to find and fill niche markets in Canada that are also present in many other countries. They find that niche marketing can be done by firms of all sizes, but smaller firms often lack the marketing and financing resources to do so easily. Becoming a supplier to leading firms can then open windows to global markets, with the supplier frequently benefitting from access to technology and management techniques provided by the leading firms. Local success in sourcing a multinational can then lead to becoming a source for its sister subsidiaries abroad.

Adjusting to Win on the Science and Technology Front

Science and technology is at the forefront in driving trends towards globalization and in many corporate strategies for adjustment to new global conditions. The significance of science, engineering and technology for national economic growth and for strategic global competition among multinational enterprises is becoming better recognized. So is the fact that a growing number of industrial technologies are becoming science-based. For many industries, therefore, it may be increasingly difficult to increase value-added and compete through technological innovation or imitation without supporting and accessing a reasonably high-level domestic science capability (see Soete, 1987; Steed, *Not a Long Shot* . . . , 1989; Kenney-Wallace/Mustard, 1988; and Kenney-Wallace, 1989).

For the rest of our paper we will focus on the following key features of science and technology, and related intellectual property matters, involved in Canada's adjusting to win in the new era of globalizing private enterprise:

- industrial R&D;
- management of technology;
- university-industry links;
- industrial R&D consortia;
- sectoral approaches to R&D;
- intellectual property, including pharmaceutical patenting; and
- subsidies for R&D.

Industrial R&D

Many of Canada's senior advisory bodies and industry associations are concerned about the low levels of industrial R&D in Canada compared with other countries (Kenney-Wallace/Mustard, 1988). Canada's overall direct R&D expenditures stand at just under 1.4 percent of gross domestic product. That is substantially lower than most other

advanced industrial countries. The major shortfall is in industry, whose direct R&D expenditures stand well below one-half that of the top five countries (Table 5). The historical reasons and evolution of our current industrial structure have been detailed in terms of the overdependence on government R&D and underperformance of the private sector over the past century (Kenney-Wallace/Mustard, 1988).

Table 5
Direct Industry R&D Expenditures as % of Gross Domestic Product, 1986

Sweden*	2.15
West Germany*	1.98
U.S.A.	1.93
Japan	1.85
U.K.	1.63
France	1.32
The Netherlands	1.30
Canada	0.76
Italy	0.67

* 1987 figures

Source: Statistics Canada, *Canadian Science Indicators*, 1988.

The top ten firms doing R&D in Canada account for over one-third of all industry-funded R&D (Steed, *Not a Long Shot...*, 1989). They include Bell Canada (by far the leading performer), Pratt and Whitney, IBM Canada, Alcan and Imperial Oil. Other Canadian industries—aircraft, communications and electronics, and engineering and scientific services—also have a high level of R&D expenditures in relation to sales and stand well in international comparisons. Major sectors where we do less well when measured against our counterparts include most resources—agriculture, forestry, fishing and mining—as well as automobiles and chemical products. General Motors of Canada, for instance, with 1987 Canadian sales of $17 billion has no designated Canadian R&D facilities and an R&D budget of just $45 million. However, recent directions for General Motors of Canada signal a new commitment to R&D and commercialization of technology in Canada for its world product mandate. For the resource sectors, the federal government's laboratories have long dominated, but have not fulfilled the expected commercialization or technology transfer to the private sector that their missions originally called for. Other main factors thought to contribute to Canada's low level of industrial R&D include the extent of the multinational control of Canadian industry and the very low level of R&D defence expenditures (Table 6).

The bright spots of Canadian industrial R&D stand out all too starkly against a background of limited or non-performers. As the Canadian Manufacturers' Association has pointed out, "the lack of commitment to industrial R&D by Canadian industry is a

clear indication that CEOs (Chief Executive Officers) in many Canadian companies are not measuring up to what is required in today's competitive environment." (Canadian Manufacturers' Association, 1987). The issue is one of leadership.

Table 6
R&D Defence Expenditure as % of Gross Domestic Product, 1985

U.S.A.	0.85
U.K.	0.67
France	0.46
Sweden	0.30
West Germany	0.13
Italy	0.08
Canada	0.04
Japan	0.02

Source: Statistics Canada, *Canadian Science Indicators*, 1988.

Management of Technology

Part of Canada's problem is inexperienced and unbalanced management. Unlike the situation in Japan, in Canada there are very few CEOs knowledgeable about science and engineering. Canada's most immediate science and technology problems are the inability of many of its managers to develop and apply technology to make a profit, the low rank within managerial hierarchies for those with technological expertise and the relatively low rewards for such expertise (Science Council of Canada, *Gearing Up For Global Markets*, 1988). Even with the best of intentions, many board directors and senior managers lack experience in dealing with technology, especially in organizing and intensively managing corporate R&D and technology renewal.

Furthermore, the pressures of quarterly shareholders' reports and annual performance reviews mitigate against the long-term investment and longer-term return on investment necessary to launch technology-based ventures (Kenney-Wallace, 1989).

University-Industry Links

One approach to sustaining a high level of performance by Canada's firms in the face of rapid globalization that has received a great deal of attention and experimentation in

recent years has been to stimulate greater collaboration between universities and industry in order to help business draw on the scientific knowledge and expertise of Canadian universities (Potworowski, 1989; Science Council of Canada, *Winning in a World Economy . . ., 1988*). In the past five years several federal and provincial government initiatives have been introduced to stimulate and foster such links. For instance, governments now provide matching funds for university-based research projects initiated and partly funded by industry. In addition, both the federal and Ontario governments have introduced major funding for centres of excellence programs designed to involve networks of university researchers, financed by a consortium of companies with matching government funds. These programs are driven by coupling intellectual and economic strategies. Selecting the people involved has been based on intense international peer competitions, not by government "picking winners" in terms of selecting technologies or promoting regional development.

These programs will probably prove to be of greatest benefit to those companies which already have substantial in-house R&D and hence the capability to accept and manage the transfer of technology from the researchers in the universities and to develop and exploit it profitably. Leading companies, such as Alcan and Bell Northern Research, which is 70 percent owned by Northern Telecom, have evolving strategies for building university links. Major components of their strategies are to complement existing expertise in their own research centres, satisfy needs for highly qualified graduates, obtain appropriate new technology, strengthen their capability to scan the world for scientific developments and potentially useful technologies, nurture contacts with a network of world experts, and maintain research "windows" by negotiating research contracts with talented faculty members, and their graduate students, in areas relevant to their needs and objectives (Potworowski, 1989). Bell Northern Research for instance, currently has over sixty such university research "windows" as part of its University Interaction Program.

Industrial R&D Consortia

Another related response to globalization has been the formation of industrial R&D consortia (Kenney-Wallace/Mustard, 1988; Kenney-Wallace, 1989). As in other advanced industrial countries, there has been a surge in the formation of such consortia, despite the frustrations and sensitivities frequently involved in organizing and focusing them.

Their growth no doubt reflects many time and cost considerations, as firms seek to speed up the process of technological innovation and share the heavy costs, especially in strategic research areas. There is probably also an element of scrambling to emulate Japanese success with cooperative R&D, particularly in pre-competitive research. In Canada, one estimate is that R&D consortia have increased from 6 in 1970 to 16 in 1980 and 50 in 1988. The earliest known model in Canada dates back to 1926 when Paprican was established for the forestry industry.

Canadian approaches to pre-competitive industrial R&D consortia tend to be similar to those in the U.S. insofar as the research is usually carried out at a university under the sponsorship of several private corporations or industry associations. This represents what Fumio Kodama has called a chronological concept of technological innovation, with research beginning at the scientific stage and progressing through the application and subsequent development stages. Kodama suggests a different situation prevails in Japan, where pre-competitive research achieved through research associations has the goal to create an engineering infrastructure as the basis for competition (Steed, *Industrial R&D Consortia*, 1989).

In Canada several federal and provincial programs have supported industry-led, pre-competitive research. In 1988, one provincial government—Quebec—introduced several budget measures to encourage such collaborative research ventures. But there is one important stumbling block to further corporate support. That is the recent federal tax reform requirement that the R&D must be related to a business of the taxpayer if that business is to be eligible for deduction of certain R&D expenditures for participating in a consortium.

A good example of the consortium approach to R&D is The Institute for Chemical Science and Technology. In 1985, a number of Canada's largest chemical and petro-chemical companies responded to growing global competition by creating this non-profit institute to solve common problems, produce pre-competitive new technology and improve research linkages with universities. Nine universities and six major industrial sponsors—CIL (a subsidiary of ICI), Dow Chemicals Canada, Imperial Oil (a subsidiary of Exxon), Polysar Limited, Domtar Inc. and DuPont Canada—are members. Between the six industrial sponsors, total R&D expenditures are close to three-quarters of a billion dollars (Potworowski, 1989).

Sectoral Approaches to R&D

To stimulate and assist the process by which government helps the private sector help itself, the Science Council recently recommended that sectoral R&D targets be set and sectoral innovation strategies developed (Science Council of Canada, *Gearing Up for Global Markets*, 1988). This calls for close, on-going consultation within the private sector, and between it and government, to build consensus on priorities and agendas for science and technology action. The federal government has agreed to collaborate with the Science Council to start a study in which R&D investment and innovation strategies will be analyzed on a sector-by-sector basis, given the current and evolving climate of international competition.

Canada's mining industry has recently taken a significant step in this regard. The Mining Association of Canada has created a Mining Industry Technology Council. The Council is designed to set mining R&D priorities in industry, government and university laboratories, and promote collaboration and coordination in industry-wide R&D.

Another major Canadian sector with some collaborative effort in R&D is pulp and paper. The Pulp and Paper Research Institute, in operation now for about sixty years, is a non-profit research and educational institution. Its members represent nearly all of Canada's pulp and paper producers. A problem that it faces is that many of its members are technologically rather conservative and very few have in-house R&D capability. It is under pressure to do a certain amount of technical service work and trouble-shooting at the expense of the longer term R&D for which it is particularly well suited. The diversity of interests of its members leads in effect to what some refer to as the choice of a "least objectionable" research program. That does not satisfy the bigger multinational enterprises with large in-house R&D programs. They would like to see greater orientation to long-term generic R&D and stronger relations with universities.

The potential contribution of university research to the forest-product industries has been seriously undermined for many years by the lack of a suitable industrial receptor, the fragmentary nature of the industrial research underway and the limited sense of priorities. Some signs of change in this situation over recent years offer encouragement, including significant expansion in the Institute's relations with the University of British Columbia and the increased focus there and at McGill University on developing high quality engineers familiar with the technology of the pulp and paper industry. A new major R&D facility to be opened in Vancouver in late 1989 heralds changing attitudes towards competition, diversified products and environmental concerns affecting regulation of pulp and paper mills. The growing globalization of the industry intensifies the need in Canada for greater technological capability to help cut costs and move away from the current strong production orientation toward more service-oriented thinking and development of higher value products.

Intellectual Property

Another aspect of increased globalization concerns the heightened attention to intellectual property matters. In recent years some prominent leaders, particularly Americans, have emphasized the key role of technological innovation for economic growth and taken the view that intellectual property rights are of fundamental importance in providing incentives for such innovation where patents are effective (Mansfield, 1988). The protection of intellectual property rights has become a contentious issue in international trade and an important item in the current Uruguay Round of GATT negotiations.

In the mid-1980s, Canada came under particular pressure (mainly from American-based multinational pharmaceutical enterprises), to change our patent regulations, especially the compulsory licensing provisions. After considerable controversy the government agreed. Parliament changed the Patent Act to give stronger protection to pharmaceutical firms but, in return, obtained commitments from industry representatives for substantially increased pharmaceutical R&D by the multinationals in Canada.

Canada's objectives were to transform the pharmaceutical industry into a dynamic, world-class, innovative industry by greatly increasing the amount of R&D conducted in Canada, to prevent consequent abuse of prices, and to ensure the development of a more substantial and export-oriented chemical manufacturing industry. The industry agreed to raise its R&D from the 1987 level of less than 5 percent of sales, to 8 percent in 1990 and to 10 percent by 1996. It also indicated its intent to make greater use of universities across the country.

The federal government considers that the new legislation has balanced the needs of the multinational, brand-name enterprises, and the mainly domestic generic companies, providing a reasonable period of exclusivity in patent protection, but also maintaining Canada's compulsory licensing system.

Intellectual property issues were also a major bone of contention in the design of the Canada-U.S. Free Trade Agreement (Steed, *Not a Long Shot*..., 1989). The Americans desired a separate intellectual property chapter in the Agreement to address several long-standing irritants in Canada-U.S. trade. That desire was outweighed by the reluctance to exempt Canada from U.S. trade law, including Section 337 of the U.S. Tariff Act of 1930 which involves investigations of unfair intellectual property practices. The Act has a much criticized injury requirement and has been used principally as a defense against patent infringement by imported goods. More recently it has become a major weapon against high technology and other products infringing not only patents, but trademarks, copyrights and trade secrets as well.

R&D Subsidies

The increasing internationalization of large business enterprises brings many implications for governments. A major one is that some of the principal weapons governments can use to implement science, technology and industrial policy are losing their edge. For Canada, tariffs are rapidly diminishing to insignificant levels under the aegis of the General Agreement on Tariffs and Trade plus the Canada-U.S. Free Trade Agreement. Other major means of support such as subsidies to targeted industries, or even selected firms, and government procurement contracts, are also increasingly under attack as impediments to fair and open trade.

As multinational enterprises have grown in importance, the ability of governments to ensure that subsidies and procurement contracts generate domestic benefits and home production has rapidly declined. It is inevitable that some R&D subsidies and defense contracts will end up supporting foreign production facilities and foreign suppliers in the global networks of multinational enterprises.

For the governments of all advanced industrial countries, the pressures to contain the use of subsidies are heightening in intensity. In Canada's case, most of the pressure comes from the United States. But in the design of the Canada-U.S. Free Trade Agreement, the two countries could not make a mutually acceptable definition of an

unfair subsidy and neither was willing to give up their respective subsidies or to exempt the other's subsidies from the application of unfair trade remedies (Steed, *Not a Long Shot*..., 1989). However, the R&D subsidies tend to be less contentious than subsidies in other areas.

At the moment, Canada and the United States have five to seven years to negotiate a new unfair-subsidies code. Canada's provincial governments are pressing the federal government strongly to ensure the unfair-subsidies code allows R&D grants, an area in which there is likely to be continuing action in provincial development strategies.

Conclusions

In brief, several words help characterize the 1989 conditions of globalized private enterprise in Canada—prosperous and profitable, confident, but hopefully not complacent. The main features of increasing globalization take a distinctive manifestation in Canadian-owned industrial enterprise, which is largely resource-based and small compared to the global giants. Multinational enterprises, many American-owned, continue to play a very important and still contentious role in Canadian competitiveness. And a significant new condition confronting all Canadian firms, one which forces them to look outward to a greater extent and which most multinationals face with confidence and satisfaction, is the freshly introduced Canada-U.S. Free Trade Agreement. The Agreement also ensures for Pacific Rim and European firms, that Canada now represents a more attractive base for investment and a better window into the North American market.

This paper has focussed on seven key features of science and technology and related intellectual property rights involved in Canada's approach to adjusting to win in the new global environment. There are some bright spots but also some areas of conflict and serious concern. Canada is addressing many of those concerns and introducing some innovative approaches to build new links between organizations. The time is right to explore additional opportunities for action, particularly at the international level, including areas in which Canada and Japan can complement one another and cooperate for mutual benefit. Harnessing our joint strengths and widening the areas of Canadian/Japanese cooperation, especially in science and technology, could prove in our mutual interest and a continuing source of vigorous growth in the 1990s. It is a source of satisfaction, therefore, that the Science Council of Canada was requested by the Prime Ministers of Japan and Canada in April 1988 to explore areas and means of enhanced research and development between Canada and Japan.

Postscript

The Canada-Japan Complementarity Study (Science Council of Canada, 1989) was concluded in May 1989 and submitted to the two Prime Ministers in July 1989. The new formal agreement between Canada and Japan, which identified six umbrella areas for future R&D and recommendations for a long-term binational strategy of alliances, cooperation and collaboration, was announced by the Prime Ministers in September 1989 and the first four binational workshops will be concluded by March 1990.

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Globalization of Japanese Enterprise

Ken-ichi Imai
Hitotsubashi University

International business behaviour is undergoing a fundamental process of change. The globalization of production, marketing, finance and labour is eliminating national boundaries to an unprecedented extent.

Internationally-oriented or multinational firms have entered an era of "global strategy" in which they coordinate their managerial resources in a centralized way within a global market. Typical multinational firms such as Dutch Shell or Unilever have reached such a stage.

Large Japanese firms, following strategies of leading competitive firms in the world market and confronted with severe international conflicts, are now strenuously seeking their own international strategies that will fit their managerial resources. Managerial resources of multinational firms are not created instantly but are formulated in a prolonged evolutionary process, particularly in the case of Japanese firms, and therefore, Japanese global strategies will evolve in the coming decades.

The purpose of this paper is to clarify the purpose and characteristics of the internationalization of Japanese firms during this evolutionary process.

The Recent Trend Towards the Globalization of Japanese Firms

There is a notable trend in the recent international activities of Japanese firms toward increasing foreign direct investments with the goal of building production sites in close proximity to centres of demand in developed countries.

A recent MITI survey of the purposes of direct foreign investments by Japanese firms revealed that the three major purposes of investment in North America and in the European Community (EC) were gaining access to "promising markets of host and neighbouring countries"; "strengthening the accessibility to information"; and "increasing the ability to respond to consumers' needs." Although this survey was restricted to small- and medium-sized firms, these firms are sharply focusing their sights on demand-oriented direct investments in order to seize market opportunities and obtain market information from advanced countries. This is in marked contrast to the major purpose of Asian investments, which is to reduce labour costs. Japanese firms, including even small-sized firms, have begun to establish directions for promoting the growth of the firm in a global setting. Getting on-the-spot market information and feeding such information back to the Japanese domestic production and marketing systems is their strategic focus at the present time.

Procurement of parts and materials in the host country is also increasing. Electronics manufacturers have especially promoted this trend in order to cope with the recent sharp evaluation of the yen. A survey of Japanese manufacturing firms in Europe reported that nearly 50 percent of surveyed firms indicated the reason for increased procurement was "the need to find an appropriate vendor" or "improvements in the quality of indigenous suppliers." The means to promote such an interaction with the industrial system in the host country is of paramount concern as it will promote new investments by indigenous firms in the host country.

A further development in the creation of a global strategy is the inclusion of research and development (R&D) expenditures as a form of direct investment. Recently, many Japanese high-tech firms have been setting up their R&D branches in the United States as a "window" to new technology and information. Several noteworthy R&D investments have also been made in Europe, including Technology Centres by Toyota and Honda and the R&D Laboratory of Aishin in Sofia Antipolis. Since R&D activity is central to the activities of high-tech firms and industry this trend could be interpreted as a sign that Japanese direct investment in Europe is getting into full swing.

Another recent trend in Japanese direct investment is the substantial increase in non-manufacturing investment, especially in finance and insurance. In 1986, the share of non-manufacturing investment in Europe occupied 78.7 percent of total direct investment. This reflects an increase in the capital funding of Japanese firms, as well as the international deregulation of finance. However, global strategies of Japanese financial companies are quite immature compared to leading international financial companies. Also, recent financial activities are "uncoupled" from real investments. Therefore, it would be appropriate to consider this trend as separate from the three trends mentioned above.

The international strategy of Japanese firms is thus progressing from the building of manufacturing facilities in foreign countries, to a more global outlook where R&D, marketing, finance and manufacturing are coordinated from the vantage point of the international market. However, this movement is at an early stage and only a few internationally-oriented companies are explicitly adopting such a strategy. The operations of most Japanese international firms can be described as "multi-domestic" rather than global.

Managerial Resources and Transaction Costs

As noted above, Japanese direct investments in America and Europe are basically of the demand-pull type. (It should also be noted that the argument for increased domestic demand has recently been especially strong in Japan. Therefore, if the managerial resources of firms are not product-specific, many firms will try to create domestic demand by diversifying their resources into promising new business opportunities rather than into direct foreign investments which often result in international conflict.) However, demand-side factors alone cannot explain all the reasons behind direct investments. Supply-side factors such as production costs and transaction costs should also be emphasized.

In order to specify supply-side factors, the managerial resources, or intangible assets for the growth of firms and their relationship with transaction costs associated with international dealings, must be identified

A strategic managerial resource for international business is accumulated information in the form of technological, marketing and managerial know-how. The characteristics of this intangible asset determine the content of corporate strategies. If such accumulated information is completely product-specific and transferable as technical know-how, the transaction costs for licensing may be low and granting technological licenses to overseas firms will be used as an international strategy. On the other hand, if such information is firm-specific and not product-specific, firms will choose to use that information in the domestic market by diversifying into promising new market areas rather than confronting international trade friction. A strategy which encourages foreign direct investment will be chosen when these intangible assets are partially product- and firm-specific.[1]

The accumulated information of Japanese firms is in fact, partially product- and partially firm-specific. It is firm-specific in that it is the result of a continuous learning process within the specific organizational boundary of each Japanese firm. It cannot apply universally to all firms, but it has enough flexibility to be transferable to other firms having intimate linkage through the same corporate culture. Such information is partially product-specific in the sense that even though it has been created during the learning experience associated with the development and production of a particular product group, it is also applicable to related products groups which have a similar product process.

The Multi-Learning Process of Japanese Firms

Japanese manufacturers have demonstrated their ability to develop new products with considerable speed and flexibility. This is important since a shorter product development cycle and the ability to adapt to changing customer needs lead to competitive advantages in the marketplace.

A study[2] of the development process of five innovative new products in Japan identified seven key factors for success.

1. *Top management as a catalyst.* The role of top management is to kick-off a product development project by signalling a broad and basic direction or goal. It rarely hands down a clear-cut goal or well-defined product concepts. It establishes changing parameters and intentionally creates a certain level of tension within the organization.

2. *Self-organizing project team.* A multi-functional team is empowered with quasi-autonomy to bring the broad guideline posited by the top to fruition. Given unconditional support from the top management, the team operates with an entrepreneurial and risk-taking spirit and a sense of mission and dedication towards achieving higher goals.

3. *Overlapping development phases.* The autonomous team often elects to proceed with the project by overlapping several phases of the development process, or by combining two phases into one. This approach is a far cry from the NASA-type sequential approach (phased program planning), which calls for division of labour and a formal evaluation at the end of each phase before proceeding to the next one. By necessity, the overlapping approach amplifies conflict, tension and ambiguity, but it can also serve as a powerful tool in managing human resources effectively through "shared division of labour."

4. *Multi-learning.* The loose coupling of phases described above fosters learning at different levels—i.e., individual, group, and organization. It also encourages learning across functional areas as project members are encouraged to become generalists. Japanese companies take the learning that emerges from the new product development process and use it as a trigger to continuously upgrade the quality of the entire workforce.

5. *Subtle control.* Top management arrests the tendency for looseness, ambiguity, conflict, or tension to turn into chaos by implanting subtle controls and checkpoints within the development process. Control is exercised by selecting the right people for the team, creating an open and visible working environment, encouraging team members to extract as much information from the field as possible, setting up an evaluation system based on group performance and establishing a set of shared values within the entire organization.

6. *Organizational transfer of learning.* Know-how accumulated by team members during the product development process is transferred to other divisions, or subsequent projects within the organization, and over time becomes institutionalized.

(But an emergence of another crisis may force the organization to "unlearn" past lessons and search for a quantum leap, thus leading to an iterative process of creative destruction.)

7. *Inter-organizational network building.* The speed or flexibility of the product development process is also supported by the existence of a network of outside suppliers (e.g., affiliated companies, subcontractors, vendors, etc.), whose participation at all stages of development is not uncommon. A long-term relationship based on trust and mutual dependency enables the manufacturer to make excessive demands on outside suppliers at times of crisis. But give-and-take exists within this network, as the manufacturer will compensate the suppliers at a later date and help them to achieve higher levels of learning through transfer of technological know-how, information sharing, or personnel exchange.

International Network Strategies

Based on the managerial and industrial system described above, Japanese firms have established a global export system of goods produced in Japan, differentiated according to users' needs for each country in the global market.

The great success of such a system has, in the last two or three years, invited severe criticism of Japan's export orientation. In an effort to cope with this criticism, Japanese firms are suddenly rushing to make foreign direct investments.

Even though this is a short-term movement in response to the sharp evaluation of the yen and increasing international economic conflict, it should be viewed as an evolution of the Japanese industrial network into an international network. The international network of the firm is a configuration which includes direct investments, joint-ventures, long-term production contracts and R&D cooperation.

Japanese firms are now hell-bent on finding a means to structure such an international network. Table 1 and 2 show the increasing involvement of Japanese firms, international coalitions and the diversity of these configurations.

The global strategy recently advocated by international American firms, is to think of the world as one market, instead of as a collection of national markets, and to coordinate R&D, marketing, production and distribution on a worldwide basis in order to attain efficiency in the overall global system.

This is in decided contrast to the multi-domestic strategy of traditional multinational firms in which a company pursues separate strategies in each of its foreign markets.

The Japanese strategy of international firms will be different from both of these strategies. In my view, a new international network strategy should be, and will be,

developed as an evolutionary extension of the Japanese corporate strategy mentioned above, based on the insight provided by a new network theory.

Table 1
The Trend of International Coalitions of Japanese Firms
(1982-1986)

Unit: Cases

	North America	Western Europe	Asia (including China)	Others	Total
1982	442	333	159	75	1,009
1983	536	356	204	65	1,161
1984	617	326	328	44	1,315
1985	562	328	495	51	1,436
1986	539	301	413	49	1,202
Increase 1982-1986	21.9%	-9.6%	159.7%	-34.7%	19.1%

Source: Compiled by Prof. Hirotaka Takeuchi (Hitotsubashi University) by NEEDS (data bank of Nihon Keizai Shimbun).

This network theory emphasizes the evolutionary development of business structure through the self-organizing, interactive behaviour among quasi-independent regional organizations. It differs in an essential way from the global strategy, which tries to achieve centralized coordination between constituent organizations.

At the same time, it also differs from the multi-domestic theory in that it places importance on information exchange between constituent regional organizations, allowing for the creation of macro information about the world market in an interactive, dynamic process.

Empirically, this network theory accentuates flexible specialization and the new marketing revolution utilizing information and telecommunications technologies.

Flexible specialization is different from both the isolated specialization of labour in the market and the planned hierarchical specialization seen in large organizations. Within such flexible specialization each unit retains autonomy and yet remains in close interdependence with other units. It is a network type of organization. Innovation within the distribution system has recently brought changes that are just now beginning to be felt in world markets. The foundation for such innovation is the application of information and telecommunications technologies which have led to the creation of a point of sales system and value-added network.

Table 2
International Coalitions of Japanese Firms
By Coalition Purpose and by Industry
(1982 - 1986)

Unit: Cases

	Technological Development	Technology Transfer	Parts Supply	OEM	Operations (Production)	Marketing & Sales	Brand Licensing
Mining, Construction	8	35	1	2	80	12	2
Basic Materials	83	253	7	10	147	223	12
Machinery	36	168	12	47	71	270	8
Electric Machinery	98	166	13	63	118	446	10
Transport Machinery	27	132	23	14	125	63	7
Precision Instruments etc.	16	52	2	37	63	217	46
Foodstuffs	7	49	1	1	51	102	12
Textiles	13	23	5	3	33	96	153
Finance	1	10	0	0	155	16	1
Services	11	76	2	1	503	144	15
Total (100%)	300 (4.9%)	964 (15.1%)	66 (1.1%)	178 (2.9)	1,346 (22.0%)	1,589 (26.0%)	266 (4.3%)

Source: See Table 1.

A combination of flexible specialization and new marketing systems creates a virtuous cycle in the sense that flexible specialization adapts to, and profits from, the new marketing system, and the marketing system itself contributes to the efficiency of the flexible specialization system.

In this Japanese management system, local managers are semi-autonomous and do whatever is necessary for success in production, marketing, distribution and R&D, and are responsible for results. The system puts special emphasis on "on the spot activities" and "on the spot information."

In today's dynamically changing society, the relative importance of being able to execute pre-programmed tasks in an efficient way is diminishing. New information needs to be generated as the situation changes. Valuable "live" ideas can be obtained only by committing to a specific time and location, by interacting with people and situations, and by "touching" real life as it happens and evolves in each region and in each country.

A crucial advantage of flexible specialization, using on-the-spot information, is an ability to create new demands in a self-organizing way. Producers operating under a flexible division of labour system, market their products according to the principle of "producing the necessary volume just in time" and are careful to note to whom their product is being sold. The linkage between producers and consumers is thereby direct, creating a strong incentive for both producers and distributors to supply goods which more closely fit the consumers' true needs. Such a system also provides producers and distributors with information about consumer demands that have not yet been met and thus contributes to increased consumption and demand.

In a network structure with flexible specialization, each constituent actor tries to make spontaneous linkages with other actors to seize new business opportunities. Associated and emergent linkages between producers themselves, and between producers, marketers and consumers, contribute to creating their own markets, while multiplying through self-organization. For example, a company located in a region will try to achieve a technology transfer by setting up long-term relationships, or by diversifying its technological resources into other fields, thus creating new combinations with other technologies through tie-up contracts. These activities contribute not only to the firm's attempts to find its own niche and to create its own demand or market, but also activate the overall regional economy.

One of the essential characteristics of Japanese management is the desire to obtain on the spot information by direct contact with parts vendors, machinery suppliers, users and consumers. From this standpoint, it is essential for Japanese international firms to be an insider in each country, where, embedded in the social and economic system, the firm can create long-term contacts and contracts.

The semi-independent organizations mentioned above typify this type of insider organization. Through spontaneous linkages with regional firms, the transfer of technology which is company-specific and includes tacit knowledge, becomes possible. Also,

through such technology transfers, appropriate linkages with vendors of parts and machinery will be fostered.

The Japanese firm can make the greatest contribution to the economic environment in other countries when it plays the role of catalyst in making new linkages between firms and industries.

This system is a spontaneous extension of the Japanese company town system. Japanese industries and firms, with their flexible internal organization and elaborate inter-firm networks, have been quite successful in speedy and flexible development of new products. Thanks to recent breakthroughs in information technologies, this system can be expanded across national boundaries. However, at the same time, there exists a natural limit to such expansion because information exchange through human networks is restricted, even with the great efficiency made possible by telecommunications. Therefore, a crucial issue is how to design a new regional division of labour on a global scale, and how to establish a technological and organizational structure appropriate to each region. For example, in the Japanese system, highly advanced sub-assemblies will and should remain in Japan; some factories of advanced components will be located in the NIEs by joint ventures; and standardized components will be produced in ASEAN countries by subcontracting or licensing.

In order to discuss this idea more concretely it is necessary to examine in detail the basic characteristics of technological linkages and inter-organizational relationships.

Technological Linkages and Inter-Organizational Relationships

In order to discuss the configuration of international networks—what parts of the industrial complex should remain in Japan and what parts could be located in the NIEs and ASEAN countries—a detailed investigation into the relationship between technological linkage and industrial location was undertaken with the help of an expert group (a special committee of the Japanese Industrial Location Centre). The results of the case studies are shown in Figures 1, 2, 3, and 4.

Manufacturing processes, components and raw materials were classified into the following categories:

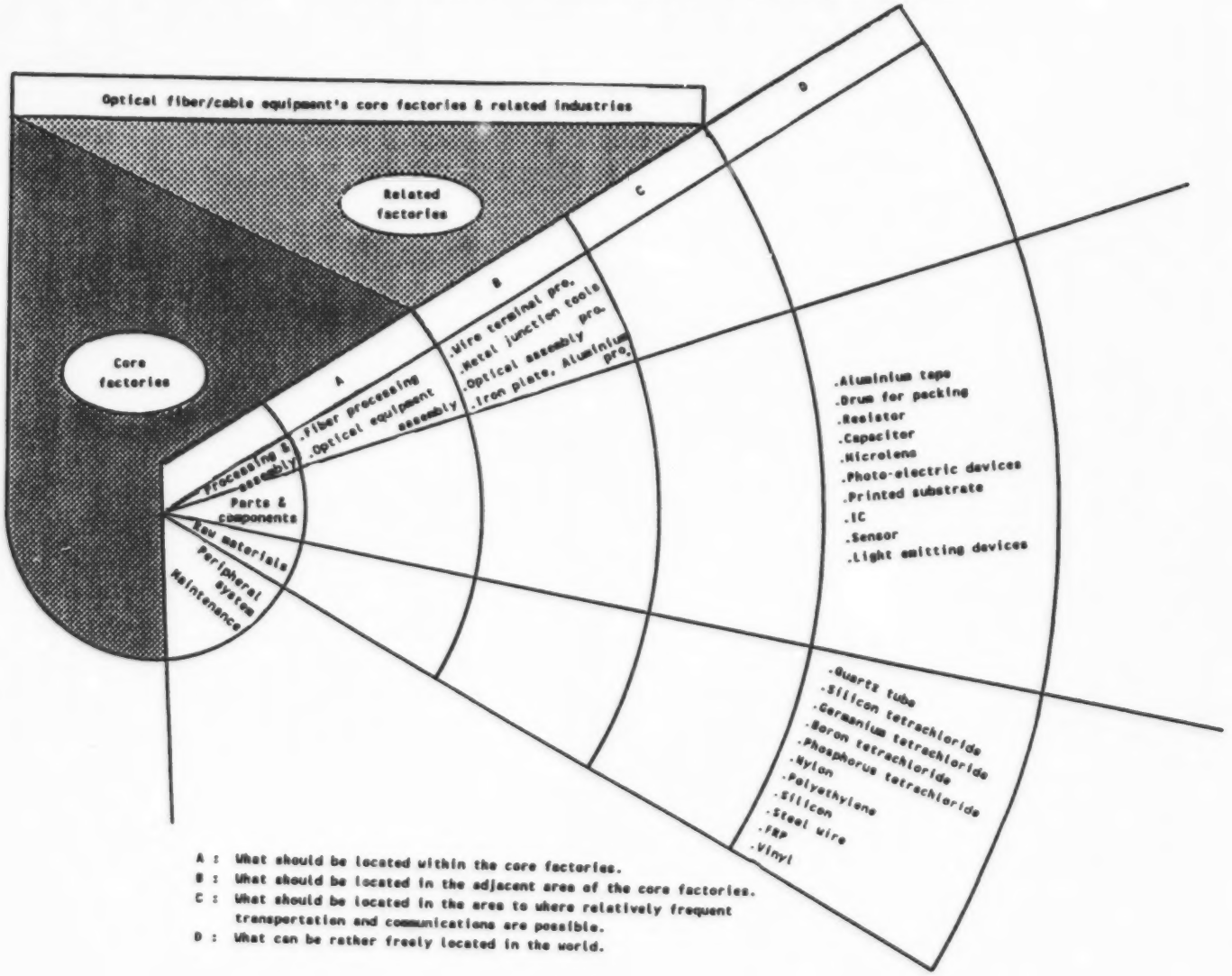
A: What should be located within the core factories.

B: What should be located in an area adjacent to the core factories.

C: What should be located in an area to which relatively frequent transportation and communications are possible.

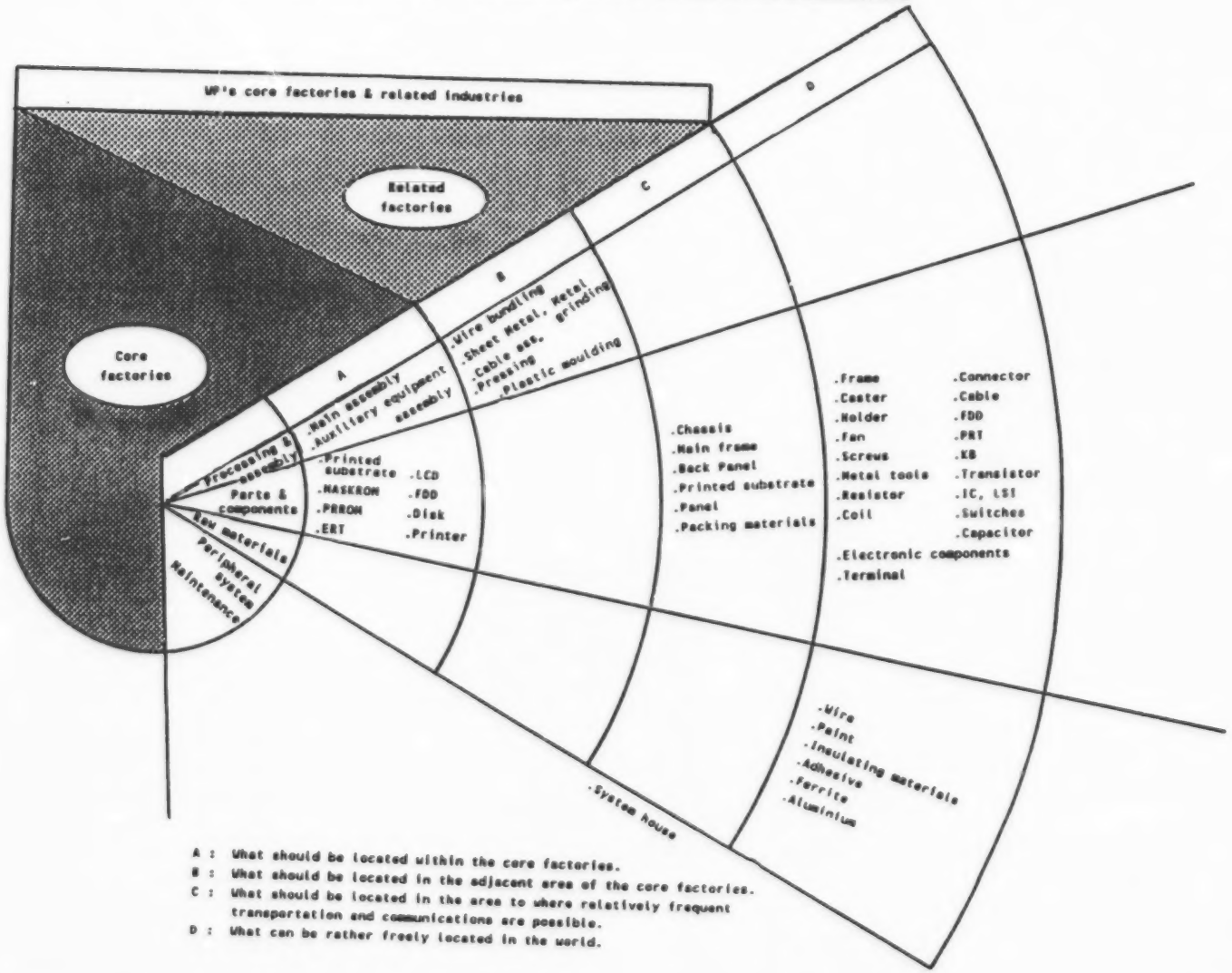
D: What can be located almost anywhere in the world.

Figure 1
Technological linkages in optical fiber/cable equipment and related industries



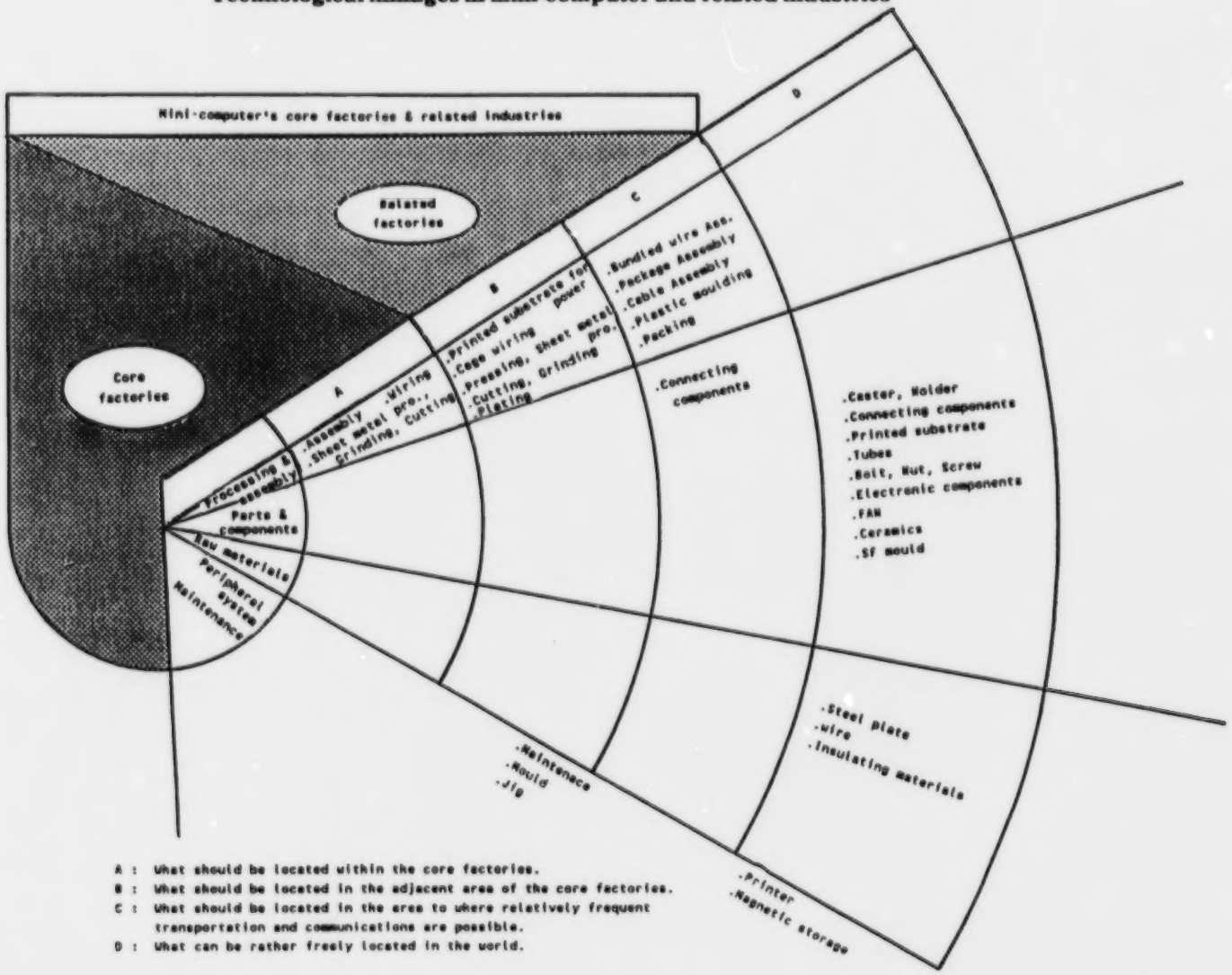
A : What should be located within the core factories.
B : What should be located in the adjacent area of the core factories.
C : What should be located in the area to where relatively frequent transportation and communications are possible.
D : What can be rather freely located in the world.

Figure 2
Technological linkages in word processor and related industries



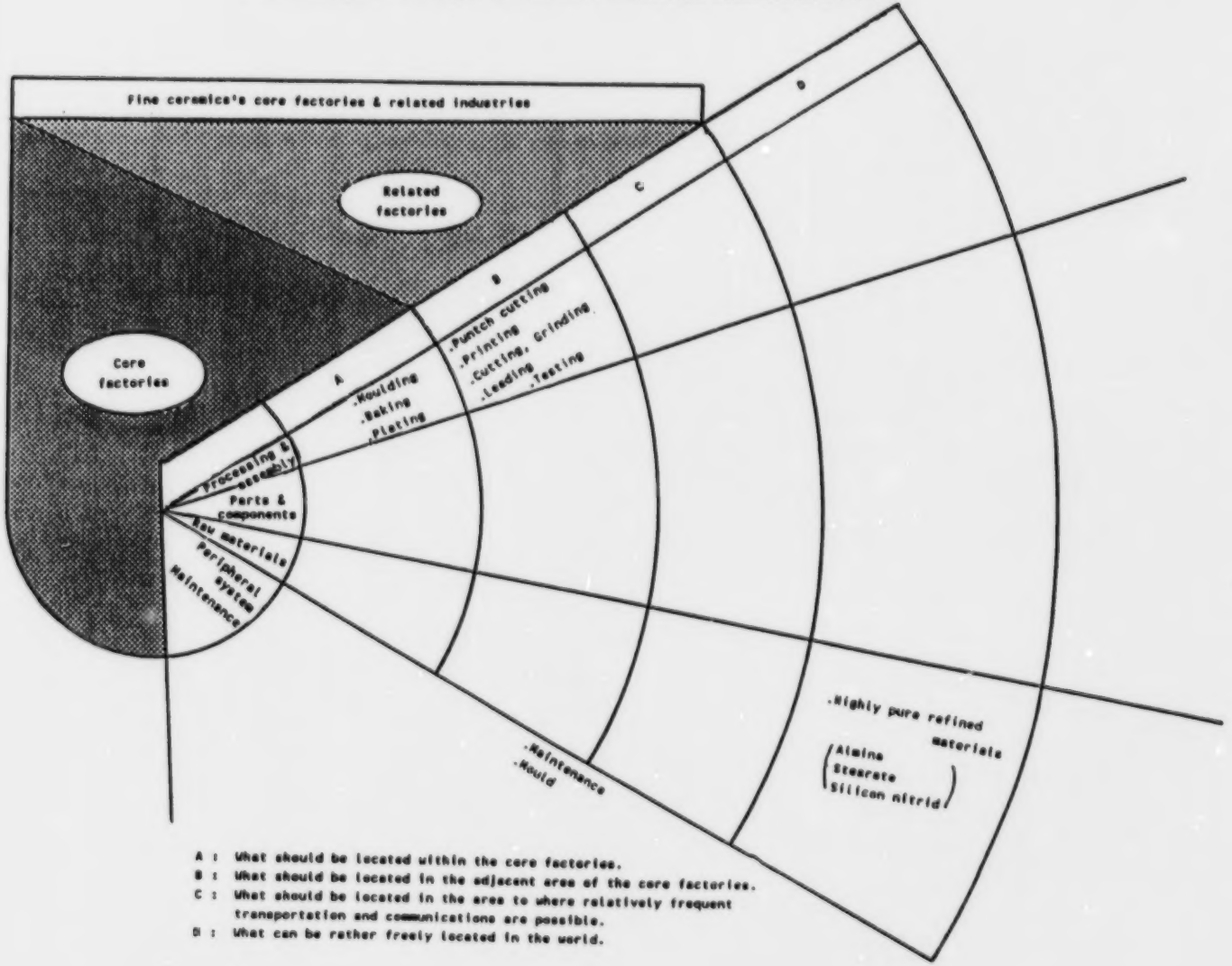
A : What should be located within the core factories.
B : What should be located in the adjacent area of the core factories.
C : What should be located in the area to where relatively frequent transportation and communications are possible.
D : What can be rather freely located in the world.

Figure 3
Technological linkages in mini-computer and related industries



A : What should be located within the core factories.
B : What should be located in the adjacent area of the core factories.
C : What should be located in the area to where relatively frequent transportation and communications are possible.
D : What can be rather freely located in the world.

Figure 4
Technological linkages in fine ceramics and related industries



A : What should be located within the core factories.
B : What should be located in the adjacent area of the core factories.
C : What should be located in the area to where relatively frequent transportation and communications are possible.
D : What can be rather freely located in the world.

For example, in the case of a word processor, all the processing and assembly stages have to be located within the core factories and in the adjacent areas (A and B in Figures 1 to 4). However, for parts and components, principal components like the printed substrate or Maskrom should be within the core factories, but others like the chasis or mainframe do not have to be located close by, and components like the frame, caster, or connector can be located almost anywhere.

Applying this idea to the design of international networks centred on the Asian countries, it is a natural conclusion that A and B tasks shown in Figures 1 to 4 should remain in Japan; to assure frequent transportation and communication, it is advisable for C tasks to be located in the NIEs; and D tasks could be located in other countries, including the ASEAN four.

From the results of these case studies, a tentative prediction can be made that in the case of optical fibres (Figure 1) all the processing and assembly stages should remain in Japan, but all parts and components and raw materials can be located anywhere in the world. In contrast, in the case of word processers (Figure 2), it is advisable for parts and components such as the chassis, main frame, back panel, printed substrate, and packing materials to be located in the NIEs, while the manufacturing of other parts and components should be moved somewhere else, perhaps to an ASEAN country. In the case of mini-computers (Figure 3), even processing and assembly stages like bundled wire, package, cable assembly can be located in the NIEs. These case studies, along with a tentative investigation into other sectors including medical electronics, aerospace, bio-industries and software, confirm that the core sectors which create a new mutual interdependence are the machinery industries related to information technologies.

Another part of the agenda of designing an international network configuration is to select contractual arrangements appropriate to the nature of the industries and countries involved. The traditional theory of the multinational enterprise usually discusses a polarized choice between equity (internalization) and non-equity arrangements, or more generally, between the internal organization (hierarchy) and the market. The network theory investigates a wider spectrum of contractual arrangements, including outright controls, joint ventures, industrial cooperation, sales franchising and licensing.

The basic economic theory which underlies these contractual arrangements is the theory of transaction costs. The study of transaction costs awaits the identification of the critical dimensions with respect to which transaction costs differ and an examination of the economizing properties of alternative modes for organizing transactions.[3]

We have discussed that the accumulated information of Japanese firms is in fact, partially product-specific and partially firm-specific. Therefore, it is very natural for Japanese firms to choose a corporate strategy in which they become multi-regional and multi-plant through international networking, using a variety of contractual arrangements.

However, in order to discuss the actual network configuration, we have to specify in more detail the transaction costs associated with each contractual arrangement. One

way to do this is to "identify a small number of key strategic issues, and to see how successfully each arrangement can handle these issues."[4]

Table 3 attempts such a comprehensive appraisal. In it, the contractual arrangements are classified into seven types: (1) Outright control (green field); (2) Outright control by merger; (3) Joint venture; (4) Industrial collaboration; (5) Subcontracting; (6) Sales franchising; and (7) Licensing. In the left-hand column of the table, 18 characteristics are identified which regulate strategic issues and govern the rational choice of contractual arrangements.

When applying this basic scheme to the design of organizational linkages in an international network (using the industries used in the prior discussion of technological linkages), the first procedure is to identify the relevant characteristics of each industry. They are indicated in the column titled "situation," by the symbol *, in Tables 4 and 5. However, the characteristics do not represent problems of equal difficulty to the firm, and are therefore weighted according to the importance of each issue.

In assigning a weight to each characteristic, special importance has been given to the ones related to quality control. How to cope with quality control is crucially important in designing a network configuration because the quality of the final output is dependent on the quality of its inputs, which are closely linked in the network and have potential cross-over effects.

Very tentative scored tables are shown in Tables 4 and 5. The scores in the tables are calculated according to the principle that a "+" sign is equivalent to +1, "0" sign to zero, and "-" sign to -1. Each number is multiplied by the weight.[5] These results suggest that in the case of information-related complex industries like word processors and minicomputers, joint ventures and subcontracting are the most preferable choices within the possible contractual arrangements from the standpoint of transaction costs. In the case of optical fibre and fine ceramics industries, outright control by merger or green field are better than joint ventures or subcontracting. In both cases, industrial cooperation, sales franchising and licensing are the least preferred strategies.

Thus, combining these points with the implication mentioned above related to technological linkages, we can conclude that strategic alliances for Asian companies in the information-related industries with Japanese firms through joint ventures and subcontracting will play a crucial role in promoting new economic growth in Asia.

Table 3
Characteristics Affecting the Choice of Contractual Arrangements

	Contractual Arrangement						
	Outright Control						
Characteristic	Green Field	Merger	Joint Venture	Industrial Collaboration	Sub-contracting	Franchising	Licensing
Nature of Advantage							
Involves work organization and management	+	0	0	0	-	0	-
Protection and codification difficult	+	+	0	0	-	-	-
Nature of Firm							
Capital is difficult to obtain	-	-	0	0	0	0	+
Management skills are narrow	-	-	0	0	+	+	0
Nature of Industry							
Outputs mobile and demand very inelastic	+	+	0	0	+	-	-
Inputs mobile and supply very inelastic	+	+	0	0	-	+	-
Quality very variable	+	0	0	0	-	+	-
Quality difficult to judge by inspection	+	+	+	+	-	-	-
Perishable or delicate output	+	+	+	+	-	-	+
Monopolized distribution channel	+	+	0	0	-	-	+
Economies of scope in marketing	-	-	0	0	-	+	0
Nature of Countries (and Industry)							
Large difference in production environment	-	+	+	+	+	-	+
Large difference in marketing environment	-	+	+	+	-	+	+
Large scope for transfer pricing gains	+	+	0	0	-	-	-
Host government dislikes foreign control	-	-	0	+	0	0	0
Political relations make expropriation risk high	-	-	0	+	0	0	+
Difficult communications	-	-	-	-	0	0	+

Source: Quoted from Mark Casson, *The Firm and the Market — Studies on Multinational Enterprises*, (Basil Blackwell, 1987).

Table 4
The Choice of Contractual Arrangements in the Word Processor and Mini-Computer Industry

		Outright Control							
	Weights	Situation	Green Field	Merger	Joint Venture	Industrial Collabo-ration	Sub-contract-ing	Sales Fran-chising	Licensing
Nature of Advantage									
Involves work organization and management	1	*	1	0	0	0	0	0	0
Protection, codification difficult	1	*	1	1	0	-1	-1	-1	-1
Further improvements likely from experience	1	*	1	1	0	-1	0	-1	-1
Nature of Firm									
Capital difficult to obtain									
Management skills narrow									
Nature of Industry									
Outputs mobile, demand inelastic									
Inputs mobile, supply inelastic									
Quality very variable	1	*	1	0	0	0	0	0	0
Quality difficult to judge by inspection	2	*	2	2	2	-2	2	-2	-2
Perishable or delicate output	2	*	2	2	2	-2	2	-2	-2
Monopolized distribution channel									
Economies of scope in marketing	2	*	-2	-2				?	
Nature of Countries (and Industry)									
Differences in production environment	1	*	-1	1	1	1	1	-1	1
Differences in marketing environment	1	*	-1	1	1	-1	1	1	1
Scope for transfer pricing gains									
Host government dislikes foreign control	1	*	-1	-1			1		
Political relations make expropriation risk high									
Difficult communications									
Total			2	4	6	-5	7	-3	-3

Table 5
The Choice of Contractual Arrangements in the Optical Fiber and Fine Ceramics Industry

		Outright Control							
	Weights	Situation	Green Field	Merger	Joint Venture	Industrial Collaboration	Sub-contracting	Sales Franchising	Licensing
Nature of Advantage									
Involves work organization and management	1	*	1	0	0	0	0	0	0
Protection, codification difficult									
Further improvements likely from experience	1	*	1	1	0	-1	-1	-1	-1
Nature of Firm									
Capital difficult to obtain									
Management skills narrow	1	*	-1	-1	0	1	0	1	0
Nature of Industry									
Outputs mobile, demand inelastic	1	*	1	1	0	1	0	-1	-1
Inputs mobile, supply inelastic									
Quality very variable	2	*	2	0	0	-1	0	1	0
Quality difficult to judge by inspection									
Perishable or delicate output	2	*	2	2	2	-1	2	-1	1
Monopolized distribution channel	1	*	1	1	0	-1	0	-1	1
Economies of scope in marketing									
Nature of Countries (and Industry)									
Differences in production environment	1	*	-1	1	1	1	1	-1	1
Differences in marketing environment	1	*	-1	1	1	-1	1	1	1
Scope for transfer pricing gains									
Host government dislikes foreign control									
Political relations make expropriation risk high									
Difficult communications									
Total			5	6	4	0	3	-2	2

Value-Added Chains and Frontiers of Competition

So far we have discussed the supply side of Japanese international networks. It is equally important that the demand side be simultaneously considered. Using the terminology of corporate global strategy, the goal is to investigate the coordination of supply networks within value chains[6] c. value-added chains in the international market.

The value chain refers to a situation where value-added occurs in the system of the linked chain of demand, or in other words, where the most profitable business opportunities are located in the chain. When examining international networks we should consider the relationships along the entire value-added chain and the contractual arrangements discussed above.

Figures 5 to 11 illustrate the new business opportunities now emerging in Japan. These charts indicate that goods and services are supplied as a combination of physical goods, software, and human services. The horizontal axis represents the degree to which software is utilized, the vertical axis indicates the degree to which human services are utilized, and the origin represents physical goods. The pattern by which the three are combined is depicted in the charts. For example, because a computer requires roughly equal inputs of both software and services, the computer business would be drawn in the centre of the chart, at the intersection of the appropriate values on the x and y axis.

Figure 5
Business Opportunities in the Heavy Electric Industry

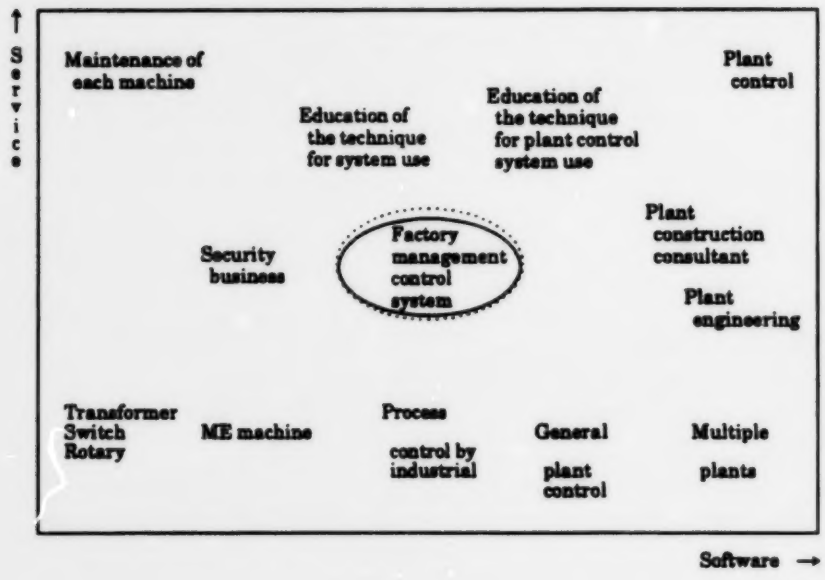


Figure 6
Business Opportunities in the FA Industry

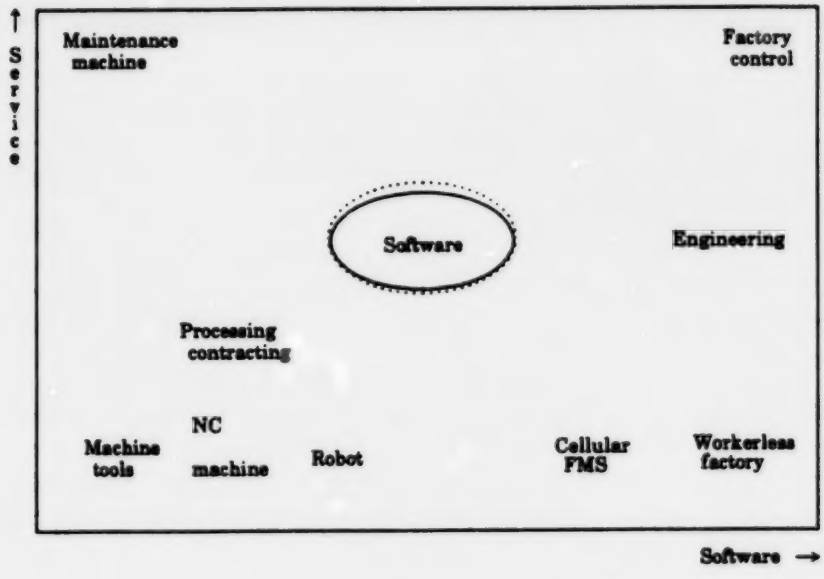


Figure 7
Business Opportunities in the Software Service Industry

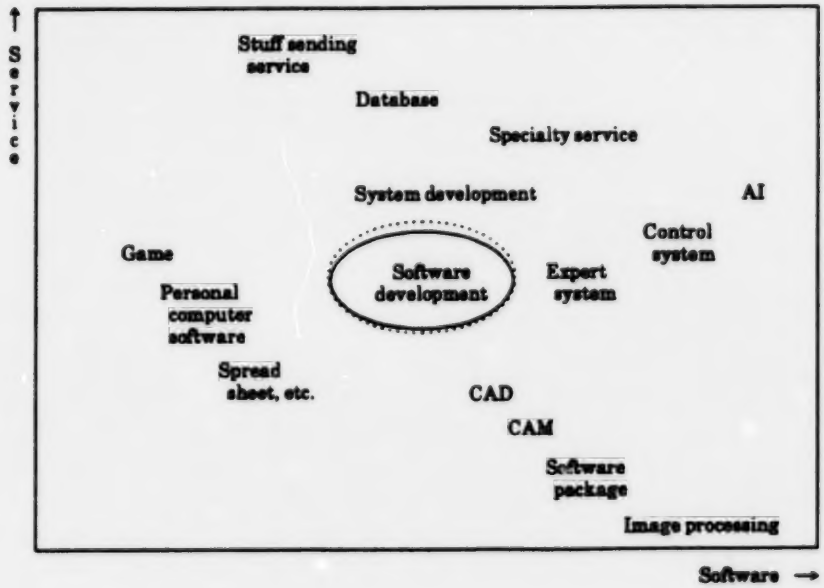


Figure 8
Business Opportunities in the Fashion Industry

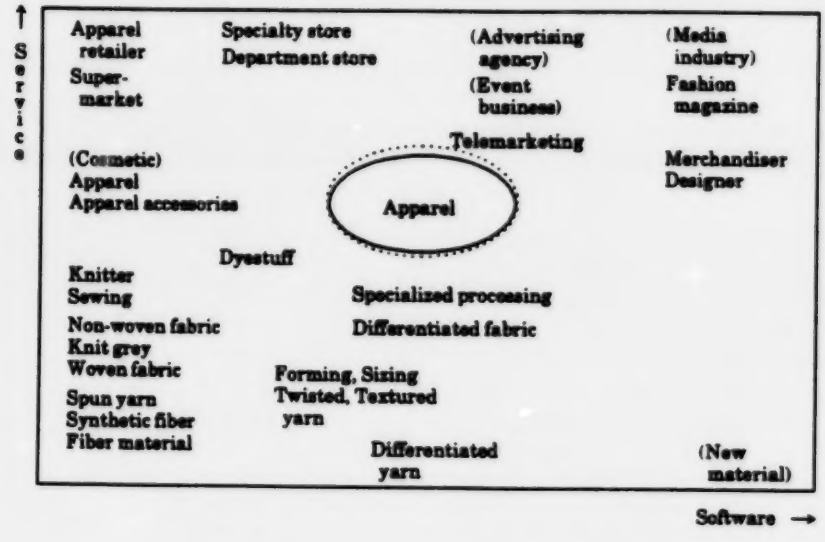


Figure 9
Business Opportunities in the Housing and Urban Industry

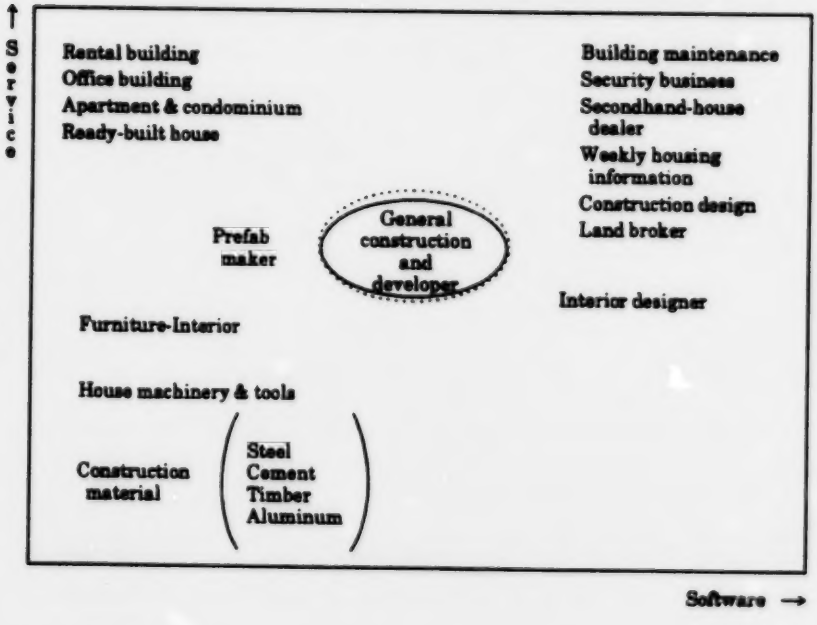


Figure 10
Business Opportunities in the Retail Industry

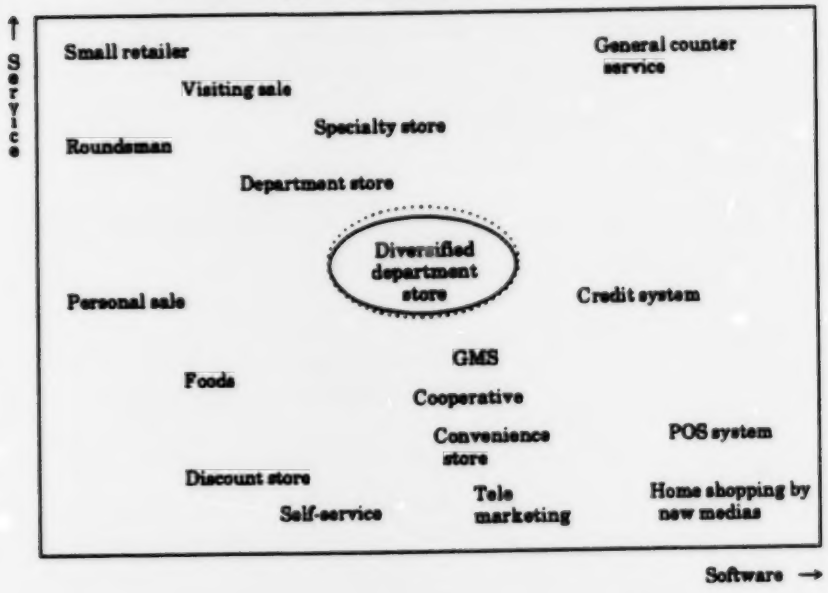
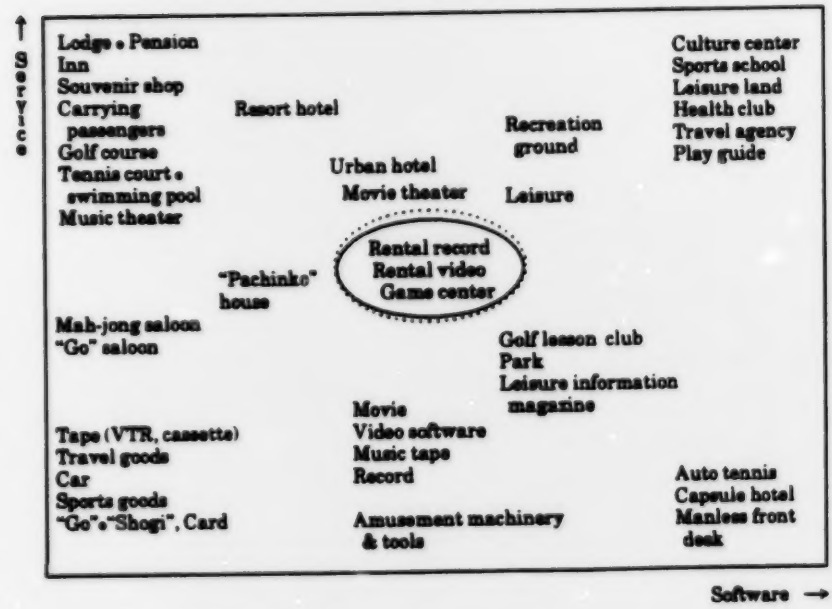


Figure 11
Business Opportunities in the Leisure Industry



In these seven figures a variety of industries are used as examples. In all cases, however, the most promising business opportunity is situated in the centre of each chart. This means that an appropriate combination of physical goods, software, and human services is required to meet the needs of present consumers. In other words, it is the *hub* of an entire value-added chain.

The goal of international firms is to achieve the most appropriate combination by utilizing microelectronic technologies. Microelectronics contributes not only to an increase in the efficiency of the manufacturing sector, but also to the non-manufacturing sector and particularly the service sectors. Telecommunications makes possible new linkages between the manufacturing and service sectors, and between the household and service sectors. All of these activities increase the demand for software, and the production of software in turn creates additional demand for microelectronics and telecommunications in order to meet the expanding needs of the software itself. The reciprocal and interdependent relationships between the above three represent an important element in creating new value-added chains. A comparison of the inverse matrix of input-output coefficients (Japan) in Table 6 illustrates how these interactions will evolve over the next fifteen years.

Table 6
Increasing Interaction Between Information Sectors
Comparison of Inverse Matrix Coefficients, 1984 - 2000 (Japan)

Upper figures: 1984 Lower figures: 2000

	Electronics	Telecommu-nications	Information Services	Other Industries	Total
Electronics	1.42 1.27	0.19 0.26	0.17 0.32	0.01 0.06	1.78 1.90
Telecommunications	0.02 0.02	1.02 1.02	0.02 0.03	0.01 0.01	1.06 1.08
Information Services	0.01 0.04	0.01 0.02	1.04 1.10	0.01 0.02	1.07 1.17
Other Industries	1.11 1.26	0.31 0.32	0.62 0.55	2.04 1.77	4.08 3.89
Total	2.56 2.57	1.52 1.62	1.85 1.99	2.07 1.86	8.00 8.04

Source: The Report of MITT's Special Committee of the Industrial Structure Council, 1987.6

Notes: Electronics: Computer and ancillary apparatus, other associated electronic equipment; electron tubes; semiconductor devices/ IC; communication and related equipment; measuring instruments; radio and television receivers; acoustics.

Telecommunications: Telecommunications industries of the first kind like NTT and KDD. Services by the second kind are included in Information Service.

Information Service: Information processing, software, and information supply services.

The frontier of international competition is now moving away from providing novelty in products, toward an emphasis on supplying an optimal combination of goods, software and services in a timely and speedy manner. This system relies on continuous innovation utilizing information technologies. In this kind of frontier competition, timing and speed become critical factors that determine the competitive advantage of firms. It includes, in a continuous innovation regime, speed of the interaction between production, marketing, and R&D, and also the interaction with the suppliers of machines and equipment. Vertically integrated Japanese firms like Hitachi, NEC, Toshiba and Matsushita have a strong competitive edge in this frontier because they have an internal organization in which all such interactions are executed at great speed.

At the same time, the speed required for such interactions will be different according to the industrial sector, and the characteristics of networks and value-added chains in which the interactions take place. Therefore, it becomes crucially important for corporate strategy to have the capacity to adjust the speeds by combining the internal core organization and international networks, and by readjusting the boundaries of each to changing economic circumstances. This is the crux of Japanese corporate strategies towards international networking and product development.

Notes

1. G.S. Galbraith and N.M. Kay, "Toward a Theory of Multi-National Enterprise," *Journal of Economic Behaviour and Organization*, 1986.

2. Ken-ichi Imai, Ikujiro Nonaka, and Hirotaka Takeuchi, "Managing the New Product Development Process: How Japanese Companies Learn and Unlearn," in Kim B. Clark, Robert H. Hays, and Christopher Lorenz eds., *The Uneasy Alliance: Managing the Productivity-Technology Dilemma*, (Boston, Mass.: Harvard Business School Press, 1985).

3. Oliver E. Williamson, *Economic Organization: Firms, Markets and Policy Control*, (Wheastshef Books, 1986).

4. Mark Casson, *The Firm and the Market—Studies on Multinational Enterprise and the Scope of the Firm*, (Basil Blackwell, 1987). p. 122.

5. At first, scores were calculated for each of the four industries mentioned above, but having found that for the word processor industry and mini-computer industry the score patterns were almost the same, and the same for the optical fibre industry and fine ceramics industry, two summarized tables, which ignore the small differences, were made.

6. Michael E. Porter, *Competition in Global Industries*, (Boston, Mass.: Harvard Business School Press, 1986).

Economic Issues Shared by Japan and Canada and Economic Structural Adjustment

Isamu Miyazaki
Chairman
Daiwa Institute of Research

The economic structure of Japan and the lifestyle of the Japanese people are changing. So too are the economic relations between Japan and other countries, particularly within Asia. This changing framework could affect the trading relationship between Canada and Japan. But rather than discuss this possibility in a bilateral context, I'd like to consider it as it relates to the global problems and responsibilities the two countries share. Both can contribute to the development of each other's economy and simultaneously help to stabilize and develop the global economy through mutual cooperation.

Despite the relatively small scale of trade between Japan and Canada, the two countries have an important cooperative role to play in the world. For example, there is much room to join forces to protect free trade, stabilize currency exchange and influence U.S. economic and trade policy.

To this end, the multilateral trading system should be maintained and advanced in conjunction with the Uruguay round of the GATT negotiations and both Canada and Japan—especially Japan—should make every effort to open domestic markets to foreign products. It follows that neither country should ask the other to impose voluntary restrictions on imports. At the same time, both countries must make efforts to prevent the United States from turning towards protectionism. On this point, Japan strongly hopes that the free trade agreement between Canada and the United States will not be operated on an exclusive and regionalistic basis.

To stabilize the Japanese yen and the Canadian and U.S. dollars, Canada and Japan must coordinate their fiscal and monetary policies at the micro-economic level. When necessary, our respective foreign exchange authorities should intervene in the currency

markets to stabilize exchange rates. At the same time, both countries should encourage the U.S. to conquer its twin deficits.

Both Canada and Japan would benefit greatly from a strengthened system of mutual cooperation in the areas of technical research, development and application. Specific areas to consider include biotechnology (including the areas of agriculture and fishery), the exploration of new energy applications and solar energy, new materials and electronics.

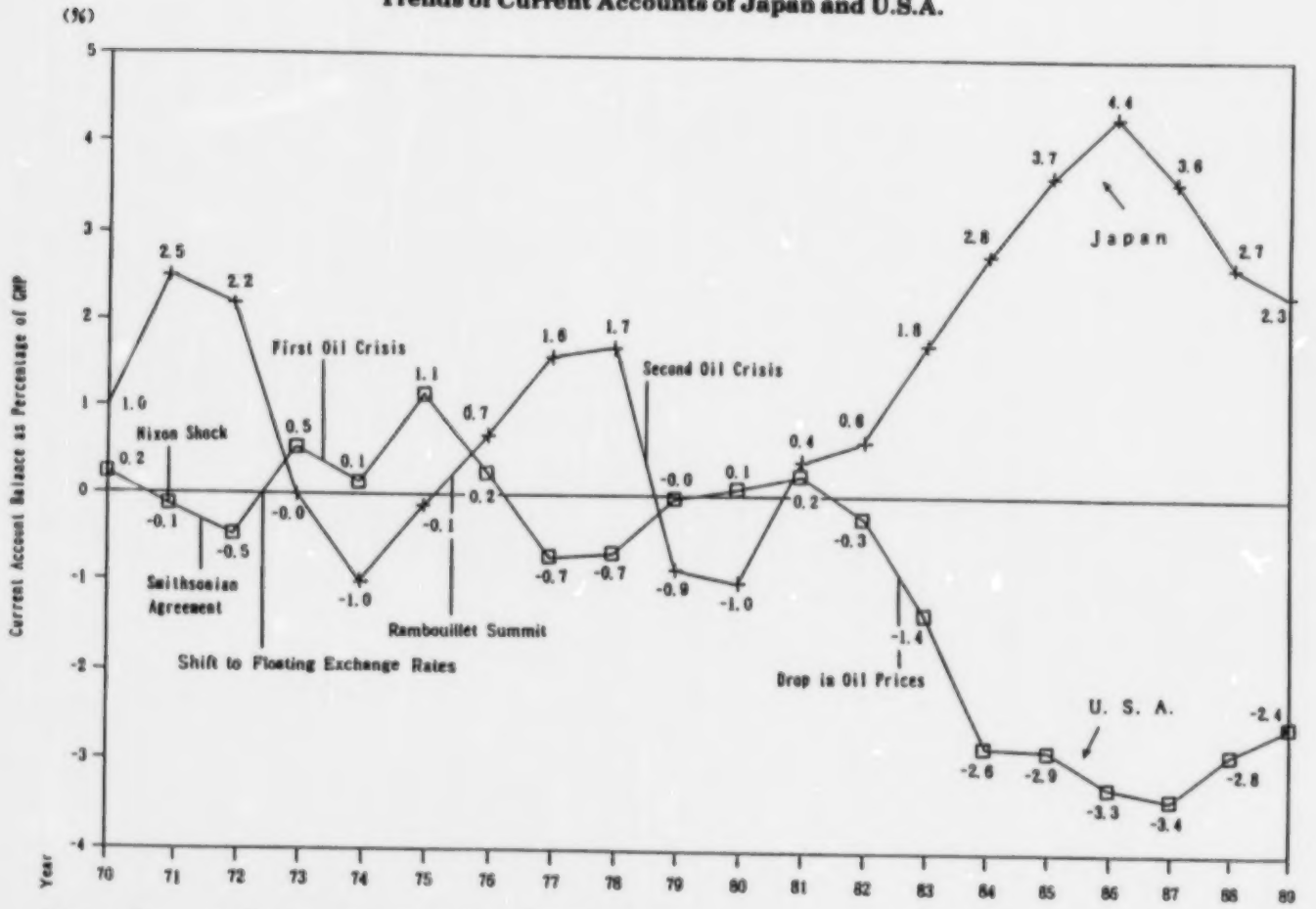
Another area of common concern is the global environment. Canada's expertise in the areas of forest protection and pollution control could provide the basis for new initiatives in environmental policy. Japan also hopes that an open policy on fishery, with a commitment to the principle of resource preservation, will prevail in Canada. For its part, Japan should make efforts to open its market to agricultural, forestry and marine products from Canada.

Canada and Japan should strengthen their cooperative relationship in the settling of cumulative liability problems, while also cooperating to promote economic growth in developing countries. The two countries play an important role in the disbursement of development aid. In 1987, Japanese external aid totalled $7.4 billion, while Canadian aid reached $1.9 billion. Together the two countries accounted for 22 percent of the aid supplied by the Development Assistance Committee (DAC). Japan's Official Development Aid has posted high rates of increase. In 1988, Japan's aid commitment exceeded that of the U.S. in total dollar amounts and Japan became the largest aid provider among the nations represented on the DAC. Despite this improvement, Japan needs to increase the amount and improve the quality of its aid, including the conditions it attaches to it.

In order to address these common issues, and to promote economic development and improve the quality of life in both countries, Canada and Japan must adjust their economic structures. For Japan the issue is its large trade surplus, which is increasing in relation to other countries. For the past several years, Japanese economic policies have given top priority to reducing its trade surplus. Japan's export-oriented and import-adverse economy, which has generally depended on overseas demand for expansion, should be modified toward a domestic demand-oriented economy.

Figure 1 shows the current accounts of Japan and the United States from 1970 to 1989. It shows that the first oil crisis of 1973 caused Japan's account balance to fall into deficit. To redress this deficit, imports were reduced and exports were increased until a surplus situation re-emerged. Between 1978 and 1979, the surplus dropped a second time, due to the second oil crisis. The Japanese government again encouraged exports and restricted imports and the current account surplus started to increase again in 1980, when oil prices declined. After 1983, the expansion of the U.S. economy resulted in an increased level of Japanese exports. In 1986 the Japanese surplus had reached 4.4 percent of nominal GNP, while the United States bore a deficit of 3.3 percent. This discrepancy is in part due to the protectionist policies of the United States and the passage of the Trade Act. To correct this, market liberalization must be promoted to a greater extent. Japan should continue to relax import restrictions, lower tariffs and

Figure 1
Trends of Current Accounts of Japan and U.S.A.



Source: Economic Planning Agency, Survey of Current Business.

abolish non-tariff barriers. To this end, the promotion of domestic demand and the appreciation of the yen has led to a gradual reduction in Japan's trade surplus and the ratio of current account balance to nominal GNP decreased to 2.7 percent in 1988 and 2.1 percent in 1989.

Tables 1 and 2 comment on the nature of real GNP growth in Japan. They show that the growth rate in 1988 was 5.7 percent, with the domestic demand surging to 7.6 percent and external demand dropping to a value of negative 1.9 percent. In 1989, it is expected that the export contribution will again be a negative figure, which should lead to a reduction of the surplus. Although domestic demand as a percentage of the GNP is increasing, the absolute amount of the surplus remains large. This tendency will continue for at least several more years before a balance is reached. Japan's objective should be to achieve a surplus of one percent by the European Community's integration target year of 1992.

Table 1
Real GNP Growth

	Annualized % Change from Previous Period				
	88 1Q	88 2Q	88 3Q	88 4Q	1988
GNP	10.1	-3.3	9.5	3.0	5.7
Private Consumption	9.0	2.6	5.8	0.1	5.0
Plant and Equipment Investment	17.2	19.8	18.0	12.6	15.9
Residential Investment	7.7	-30.3	26.0	24.4	13.8
Private Investment in Stocks (bil. Yen)	1438.7	2043.0	2093.0	1622.3	1799.3
Government Consumption	3.8	2.2	2.7	2.6	2.1
Government Investment	16.8	-9.3	-7.0	2.6	7.3
Government Investment in Stocks (bil. Yen)	415.9	119.5	-225.9	-916.2	151.7
Exports	14.4	22.0	33.4	0.5	7.9
Imports	21.1	22.0	33.4	1.2	21.3
GNP Deflator	1.4	-1.1	3.6	-0.6	0.4

Source: Economic Planning Agency.

Table 2
Contribution to Real GNP Growth

	(Annualized % change from Previous Period)				
	88 1Q	88 2Q	88 3Q	88 4Q	1988
GNP	10.1	-3.3	9.5	3.0	5.7
Domestic Demand	10.9	2.6	7.7	3.1	7.6
Net Exports	-0.8	-5.9	1.8	-0.1	-1.9

Source: Economic Planning Agency.

Besides helping to correct the surplus, the increasing domestic demand will have the effect of improving the Japanese people's quality of life. As seen in Table 3, economic indicators such as per capita GNP or level of trade, demonstrate that Japan has surpassed both the U.S. and Europe in terms of economic strength. Japan's per capita GNP is, at $23,300, well over the U.S.' $19,900. Furthermore, in net external assets, Japan leads the world. In comparison, the U.S., which has had current account deficits for some time, has become the world's greatest debtor nation.

Table 3
Economic Strength (1988)

	Japan	U.S.	E.C.
GNP ($ bil.)	2.851	4.662	4.750
Population (mil.)	122.1	243.8	323.8
GNP per Capita ($ thousand)	23.3	19.9	14.7
Current Account ($ bil.)	79	-132	** 11
Net External Assets * ($ bil.)	241	-368	147 (UK)
GNP Deflator (% change)	0.25	3.25	** 4.75
Unemployment Rate (%)	2.5	5.5	10.25
Government Deficit (% of nominal GNP)	0.2	1.7	** 2.9

* 1987 Figures
** OECD Figures

Source: OECD Economic Outlook, Economic Planning Agency.

Many Japanese people, however, feel that Japanese economic power is not reflected in their quality of life. The indicators shown in Table 4 demonstrate that although income distribution in Japan is fairly equal, housing conditions are poor, yearly working hours long and the cost of living high. The implication is that increasing the domestic demand, especially with respect to housing and social overhead capital, could lead to improvement of housing conditions; a shortening of working hours; and, through the promotion of imports, to a reduction in the cost of living. The two goals of reducing the surplus and improving the quality of life should thus be pursued in parallel. In fact, this adjustment has been under way since 1987 without any serious encounter with inflation. This effort should continue on a mid-term basis.

Table 4
Quality of Life Indicators (1986/1987)

	Japan	U.S.	E.C.
Safety			
Crime Rate (Homicides per 100,000)	1.4	8.6	4.3(UK)
Arrest Rate (Homicides, per 100 Offences)	96.4	70.2	76.7(UK)
Distribution of Income (Gini's Coefficient)	0.278	0.366	0.380(UK)
Housing Conditions (Av. Floor Space, m2)	81	135	90(FRG)
Yearly Working Hours* (Manufacturing)	2,150	1,924	1,655(FRG)
Cost of Living*	100	68	94(FRG)

* Denotes 1987 figures

Source: Economic Planning Agency, Ministry of Labour.

The adjustment of Japan's economic structure has promoted industrialization and horizontal division of labour in Asia. Imports are increasing, particularly of manufactured products. In the 1970s, the contribution of manufactured goods to Japan's total imports was between 23 to 25 percent. In discussions at the OECD, this low proportion was said to be the result of the closed nature of the Japanese manufactured goods market. An OECD proposal that the import of manufactured goods be increased prompted a Japanese response that the manufactured goods market was not closed but, rather, that the disproportionately high level of imports of energy and raw materials that was necessary for Japan's economic growth caused the contribution of manufactured goods to total imports to be relatively low. Since then, however, as a result of the appreciation of

the yen and the shift in policy to emphasize domestic demand, the percentage of manufactured goods has grown, reaching 50 percent of overall imports in 1987, a level unthinkable several years ago. Much of this growth is due to the increase in imports of manufactured goods from neighboring Asian countries, including developing nations (Table 5).

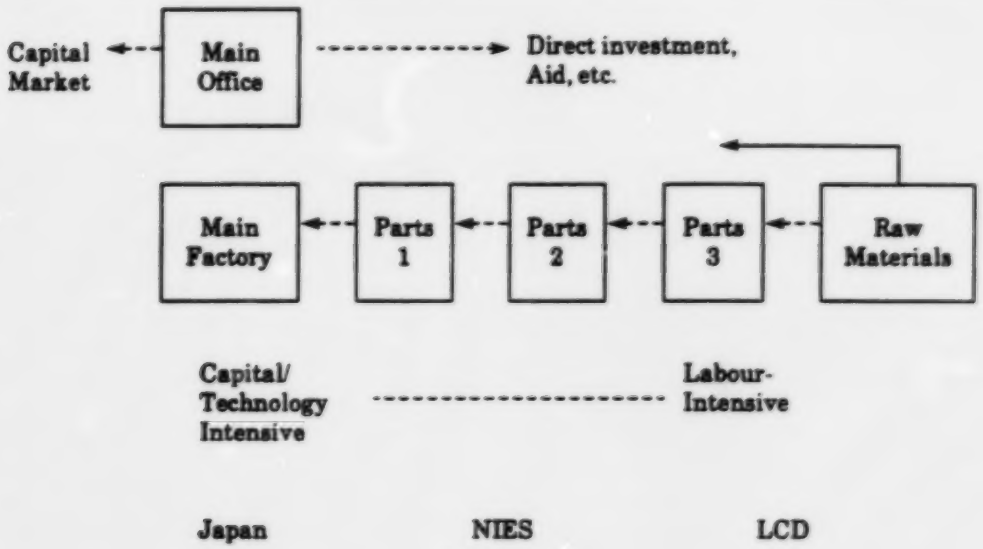
Table 5
Japanese Imports of Manufactured Products
(US$ Million, year-to-year % change)

	1983	1984	1985	1986	1987	1988
World	34,361	40,614	40,157	52,746	65,961	75,367
	(4.7)	(18.2)	(-1.1)	(31.3)	(25.1)	(42.2)
United States	12,372	13,972	14,243	17,645	17,672	19,340
	(7.9)	(12.9)	(1.9)	(23.9)	(0.2)	(35.6)
EC	6,930	7,899	7,485	11,956	15,145	16,998
	(6.5)	(14.0)	(-5.2)	(59.7)	(26.7)	(41.2)
Asian NIEs	4,511	5,733	5,689	7,083	12,459	14,900
	(1.8)	(27.1)	(0.8)	(37.2)	(59.7)	(56.4)
Korea	2,198	2,772	2,635	3,674	5,990	7,593
	(-1.7)	(26.2)	(-5.0)	(39.4)	(63.0)	(76.5)
Taiwan	1,460	1,803	1,952	2,611	4,245	4,851
	(4.5)	(23.5)	(8.2)	(33.8)	(62.6)	(41.3)
Hong Kong	549	713	648	915	1,361	1,495
	(8.8)	(29.9)	(-9.1)	(41.3)	(48.7)	(34.0)
Singapore	305	444	455	603	863	961
	(3.1)	(45.9)	(2.4)	(32.6)	(43.1)	(27.1)
ASEAN	1,177	1,403	1,398	1,483	2,221	2,736
	(11.0)	(19.1)	(-0.4)	(6.1)	(49.8)	(57.9)
Thailand	220	248	285	368	529	714
	(12.4)	(12.7)	(15.1)	(29.1)	(43.8)	(67.2)
Philippines	192	282	277	245	280	433
	(-24.7)	(46.6)	(-1.8)	(-11.4)	(14.3)	(99.5)
Indonesia	314	379	439	491	981	1,097
	(74.0)	(20.5)	(15.9)	(11.9)	(99.8)	(47.4)
Malaysia	451	495	397	379	431	492
	(20.7)	(9.6)	(-19.7)	(-4.7)	(13.7)	(42.6)
Others	9,371	11,607	11,342	13,859	18,464	21,393
	(0.1)	(23.9)	(-2.3)	(22.2)	(33.2)	(38.6)

Source: Ministry of Finance

Until recently, primary goods such as raw materials and foods were imported to Japan for processing and manufactured goods were exported to the developing nations. However, the pattern now includes the import of manufactured goods from developing nations, marking a shift in the structure of trade in Asia from a vertical to a horizontal division of labour. Figure 2 shows the flow of goods involved in a generalized Japanese manufacturing industry. The "high-technology" parts are imported from the newly industrialized economies such as Korea, and other parts requiring less technology from the less developed countries like Thailand and Malaysia. Thus, the trade of manufactured goods in Asia is becoming very active and, although it is not the completely horizontal division of labour seen in the European Community, it is a multi-layered trade structure, which encourages economic development and the possibility of trade agreements. This is a trend which should be welcomed, both politically and economically.

Figure 2



The region will not and should not, become an exclusive trading zone. Asia is a region marked by a high degree of diversity of race, religion and culture. I fear that an attempt to create a common and artificial economic bloc out of this diversity will be accompanied by many problems. It is even less desirable that Japan form the nucleus of such a bloc, although it has no intention of doing so. There are also other issues that need to be addressed with regard to the notion of the Pacific Sphere. For instance, what countries will be included? What is our attitude towards the USSR and China in this context? Will other Pacific nations, such as Mexico, be considered part of this community? And how will the delicate political position of Taiwan be dealt with?

It is essential that Japan and the region's NIEs work to promote, first and foremost, the liberalization of trade in material goods and then turn to the issues of services, capital and funds. Although there are other more complicated issues, such as the liberalization of human migration, if we concentrate on these priorities we will gradually achieve a coherent organization in which other matters can be considered.

Although the region's overall economic structural arrangement seems to be proceeding in a positive way, economic cooperation with regions outside of Asia will be increasingly necessary. We are interested in the concept of regional integration as seen in the U.S.-Canada Free Trade Agreement and the European integration, although we in Japan are not without reservations regarding the latter. Integration has a good nominal objective in terms of enhancing the scope of free trade, but there is some concern that regionalism and chauvinism might arise in the process. If the EC does become a strongly integrated market, with common agricultural and tariff policies and a common currency, will a central bank for all Europe be established? Should this occur, a well-coordinated fiscal policy across all participating countries will be necessary, which seems to conflict with the notion of national sovereignty. We are approaching, economically at least, the borderless world. But at the same time for individual nations, the feeling of sovereignty is increasing and some means of resolving this conflict must be considered.

International Economic Integration and National Policy Diversity

H. Edward English
Institute for Research on Public Policy
and
Carleton University

The "unification" or "globalization" of world markets is having a profound impact on national and cultural identity, producing both convergence of cultures and active efforts to preserve or even reinforce distinctive values and practices. This paper will focus on the links between technological change and this trade-off by examining:

(i) How technological change is affecting the size, unity or homogeneity, and structure of world markets; and

(ii) How technological and social change are affecting the desire for diversity among nations and cultures and their ability to sustain distinctive social priorities.

Particular reference will be made to the convergence of national policies in the Pacific region.

Technology and World Markets

The impact of technology on world markets is multi-dimensional. Fundamentally improved technology means new processes and new products or services. New processes reduce cost and expand demand. New products or services expand and diversify the pattern of consumption. The result is both a larger aggregate market and a wider variety of smaller and specialized markets.

The homogeneity of markets is enhanced by technological improvements in transportation and communication. For example, although the speed and convenience of air

travel and the pervasiveness and power of the broadcast media have combined to generate a greater variety of individual tastes, the same technology's ability to rapidly diffuse those tastes has resulted in a "consumption mosaic", common at least among the wealthier members of most societies. On the supply side, as the poor nations catch up in their capacity to adopt and adapt imported technology, and ultimately to compete in the innovation process, complex patterns of specialization and comparative advantage emerge. Larger countries and larger enterprises engage in vigorous rivalry over a wide range of technology-intensive activity, while smaller industrially-advanced countries, such as Canada, seek "niches" in which they hope to capture and maintain a lead in specialized technology. The resulting pattern of technology-intensive economic activity is a mixture of large and small, and although protective mechanisms such as patents provide temporary support for a market leader, there is little lasting market security. National self-sufficiency is not an option in an era of three or four economic superpowers and a number of moderate-sized competitors.

About the only means of retaining leadership in technology-intensive sectors is by developing a strong marketing system to back up well-maintained technical capacities. (IBM is the prototype of a technological business whose continued leadership in terms of market share is based on marketing effectiveness.) For many goods and services, the size of the marketing investment results in greater economies of scope than in the case where technological superiority stands alone.

Mass marketing is most effective where technological change in process and product or service design is limited, since maintaining market share through trade mark reinforcement by national media advertising is easier when significant product changes are less frequent. This applies to many personal care and processed food and beverage products. Yet it is precisely in these circumstances where "cultural homogenization" is most notable and often resisted. Developing countries know that highly advertised types of packaged home and personal products achieve a competitive advantage over "generic" products produced and sold in less spectacular style. The latter could frequently be sold in higher volume and at lower price if their sales were not so constrained by the marketing policies of their high profile competitors. For this reason, some countries have limited the advertising activities of multinational enterprises.[1]

In summary, changing technology heightens competition in international markets and brings about a convergence of tastes, especially among people whose income is sufficient to be in the market for a variety of goods and services. The extent and reasons for diversity in national policies, both traditional trade regulation and domestic policies designed for a variety of other purposes, will now be examined.

Diversity in National Trade and Other Policies

Developed countries have increasingly recognized the futility and inefficiency associated with explicit barriers to international trade, while less developed countries have found import substitution too narrow a basis for the promotion of new industry. In successive

GATT-sponsored negotiations, the major economic powers have turned their backs on conventional forms of protection—quantitative restrictions and tariffs. The reduction of conventional protective practices should be acknowledged as a substantial step forward in opening markets, especially for smaller and medium-sized countries for whom reliance on domestic markets is inadequate. Not only have the main GATT powers substantially reduced, on a multilateral basis, tariffs and some trade barriers since the Second World War, they have also facilitated progress in providing access to markets, on a non-reciprocal basis, to products of special interest to the developing countries.

The problem today is not that governments want trade barriers, though in some sectors they remain incapable of resisting conventional interest group pressures, but that they are committed for a variety of social or political reasons to support domestic economic activity in ways that partly or largely exclude foreign competition. Efforts to deal with the consequences of this higher level of intervention by governments since the Second World War has meant that new approaches to trade liberalization have developed, including regional trade arrangements among countries having similar development levels, social policy attitudes or traditions. These have achieved specific form in the case of developed countries (e.g., European Economic Community (EEC), European Free Trade Area (EFTA), Closer Economic Relations between Australia and New zealand (CER), and the Canada-U.S. Free Trade Arrangement (FTA)). All of these trade agreements, except for EFTA, have included elements that extend beyond free movement of goods, such as the movement of capital and labour (or management) and aspects of domestic policy harmonization. Meanwhile, GATT, especially in the Tokyo Round, began to define codes of behaviour respecting non-tariff practices, including technical standards, government purchasing policies and subsidies. Sectors where the predominance of non-tariff barriers (NTBs) has precluded significant progress in the liberalization of trade have received new attention in the Uruguay round of multilateral negotiations, notably agriculture. The approach to resolving NTB issues has favoured the setting up of a code to which countries are asked to subscribe and apply to their relationships with all other signatories, rather than to apply the unconditional most favoured nation principle. It is presumed that the benefits of the code would eventually attract other signatories.[2]

What can be expected from this effort to harmonize or regulate policies that have NTB effects? The answer lies in large part in the nature of these policies and whether national governments have widely differing interests that make agreements unlikely. The answer also depends on whether differences in policy aims can be resolved by methods that reduce the trade distortion effects to a point where the international competitive consequences can be overlooked. This point is well illustrated by the two standards in subsidy/countervail actions: Is there a subsidy that distorts trade flows? And, if so, does it result in a significant injury to the competing industry facing import competition?

All trading nations need to help those who face change to do so, if necessary, with some form of adjustment assistance. But the larger issue is what are the *legitimate differences* in the degree and form of social and economic intervention by government, including the prospect of new forms of intervention that changing social circumstances may warrant, and how can they be accommodated within the trading system in a non-damaging way. Most of these differences relate to varying social priorities, that is,

varying views about what constitutes the desired "quality of life" in each national setting. Among the more "economically advanced" societies the elements usually identified are:

Economic interventions:

- human resource development—education, science and technology policies;
- natural resource development—sustained development policy;
- market structure and other institutional improvement—competition, labour market, capital market and tax policies.

Non-economic interventions:

- national security policy;
- cultural identity policy;
- equity policy; and
- federalism and provincial policies.

Economic Interventions

Economic policies are designed mainly to improve on economic efficiency, either in the structural sense or to ensure that long-term investment reflects national social preferences. Human and natural resource development policies reflect a widely held view that private decision-making does not result in an adequate investment in future resource capacity and, therefore, measures must be taken by government to increase such investment. The reason for this inadequate allocation of resources is that the private evaluation of future income is considered greater than the social evaluation of future net benefits, because the former neglects positive externalities.

The pattern of social investment is also affected structurally, both by the political preferences of any public agency and by the structure of industry. Those considerations may have marked effects on sectoral investment patterns. For example, an emphasis on defense-related research and development will shift resources in that direction. However, if the spillover into domestic applications of new technology is great, the absolute level of technological progress may be increased even though there is distortion in the pattern of such activity toward defense industries. Similarly if private allocation of research and development is governed by oligopolistic or monopolistic market structures in some natural resource industries—mining, petroleum and pulp and paper—as compared with other more competitively-structured resource sectors—agriculture and the fisheries—where investment with a longer-term payoff is less attractive, then the relative strength of technical progress in the former industries will be greater. This may partly provide the economic rationale for the presence of government sponsored research programs in the agricultural and fisheries sectors in Canada and the United States.

While there has been relatively little propensity to regard public-supported research and development activity as subsidization warranting countervail, it has arisen as an issue in some recent cases, notably with regard to the public determination of charges to the users of timber land. If companies are achieving larger short-run supplies of timber by cutting down the mature forests faster than they can be replaced by natural regeneration, possibly because governments are charging too little for the right to remove trees (i.e., stumpage charges), should this be regarded as "subsidizing" the present at the expense of the future? If, on the other hand, the government is providing the financial support for reforestation, can that be regarded by enterprises not receiving such support as enabling "artificially" higher profits?[3] And what about the society that offers greater financial support to those branches of education that have the highest payoff to industry? In all these factor-endowment-related investments, there is a basis for demanding some guidelines related to sustained development objectives, but precision is lacking on the appropriate role of public policies dedicated to tilting long-term investments in resource-development and technology-stimulating activities upward. Some effort at consensus-building on these issues seems desirable, and probably unavoidable, if trade conflicts are to be prevented.

Related to resource policy is the question of environmental policies not explicitly concerned with sustained development of particular sectors. These fall into two broad categories—those that require joint action by two or more national governments and those that are purely national or sub-national in scope. The former group range from global concerns with the ozone and "greenhouse" effect, to transborder issues which can be dealt with by the joint action of neighbouring countries, such as acid rain or pollution of rivers passing along or across boundaries. Here, problems focus on the adequacy of assessments of costs and on willingness to agree on their importance and appropriate ways of sharing them. With environmental damage that is not international in scope, the primary concern of national governments is whether the costs can be transferred to the polluter or whether it should be shared socially. In the former case, it is clear that the international competitive position can be adversely affected as rival polluters in other countries may not be subject to the same obligation to bear social costs. This may result in domestic pressure to go easy on the enforcement of pollution regulations.

The other category of mainly economic interventions has to do with market structure modification. In general, these need not present a problem for trade distortion since their economic objective is generally to improve the efficiency of markets and not to distort them in ways favouring any sector of a national economy in its competitive relationship to the same sector in other economies.

It is worthwhile, however, to spell out briefly the implications of this type of policy for trade relations. For example, competition policy is designed to make the market system work more effectively. Under free trade, international competition greatly strengthens the competitive challenge to national enterprises in all traded goods and services sectors. National competition policies are still essential to limit anti-competitive practices in sectors supplying non-traded goods and services. Perhaps the main concern about competition policy is the tendency when contemplating competitiveness in the world market, for firms to promote, and politicians to allow, larger-scale enterprise to develop. This was a tendency that surfaced when the EEC emerged. Servan Schreiber

and others lent credibility to the notion that the way to meet "the American challenge" was to encourage mergers among European firms. The same tendency has also been evident in Canada now that the Canada-U.S. Free Trade Arrangement has been established and, in the face of competition from Japan, in the United States. The financial sector has felt free to promote everything from horizontal mergers, conglomerates and "leveraged" buy-outs. The past record is mixed, to put it mildly, concerning the efficiency of these routes to structural change. Wholesale resort to them on the grounds of the need to meet external competition seems particularly inappropriate for Canada. Apart from our major resource sector enterprises, Canada's best opportunities for expanding exports to the U.S. and overseas involve "niche-filling" in medium to high-tech manufactures and services and require flexible firms with specialized and superior technology. To support a successful strategy of this sort, merger activity should not be promoted as the easiest or best strategy. Ample access to venture capital and internationally competitive management educational capacities are probably higher priorities than a market structure in which medium-sized firms find it easy to resort to sell-outs to larger companies or conglomerates.

Thus the main issues in product market policy may not be those of direct intervention but rather those which give smaller enterprises opportunities to grow—policies such as those affecting the quality of human capital, and of capital markets more generally.

Capital markets are often assumed to be near perfect because there is so much mobility of capital and variety in the institutions which mobilize it. The problems lie in the unequal response of capital suppliers to large and small borrowers. Well established firms with well developed links to larger financial institutions clearly carry fewer risks when they shop for capital. In addition, firms that face more adjustment as a consequence of international competition (whether or not as the result of trade liberalization), have more financial problems than well established suppliers of non-traded goods or those buttressed by sturdy property rights. An interesting issue is whether the international availability of venture capital is sufficient for the optimum allocation of financial resources between the newer and small enterprises and older more established enterprises.

A recent series of studies[4] on adjustment problems and policies indicates that the four East Asians NIEs all have reason to raise the issue of the adequacy of venture capital. In Korea and Singapore, policy has placed emphasis on the use of large-scale enterprises, while in Hong Kong and Taiwan small enterprises predominate, but in all four economies there is a perceived insufficiency of venture capital, especially for domestic enterprises interested in shifting from traditional industries into newer more dynamic sectors. Are there remedies which governments, individually or collectively might support? Failure to develop such measures is sure to reinforce the inclination of new and adjusting industries to seek protection.

Much less need be said about the labour market question. There are many issues in rationalization of national labour markets that can affect the efficiency and the flexibility of these markets. By introducing more product and service market competition, labour markets are disciplined. (It is clear that international competition in the automobile

industry imposed constraints on union demands in the United States and that Canadian automotive workers and their leaders sought to avoid similar constraints.) In general, the rigidities in such labour markets are in substantial degree a function of the protectionism in related product markets. If the union system depends for its health on the preservation of such product market protection then it may indeed have a difficult future. The role that labour organizations and labour legislation can play in an interdependent world still requires much study.

There is one labour market issue that directly relates to international trade in goods and services. It has to do with the "packaging" of goods and services exports and takes several forms, including: the link between marketing and exports; the link between follow-up servicing and exports; and the supply of packaged goods and services with few, if any, goods components. Most marketing services are handled by established distribution subsidiaries or agents. This applies especially to standardized consumer goods, raw materials, or components. However, for customized goods or services, especially in technologically more complex sectors, salesmen with specialized qualifications may need to travel to their customers regularly. The international movement of engineers, architects, managers and construction workers is also frequently required in the establishment of new plants--as exemplified in Korea's export of construction services to the Middle East. International transactions of these types call for an immigration practice that permits temporary admission to the importing country for a long enough period to complete the transaction which, in some cases such as construction projects, could be many months.

The only other institutional issue that has been included in our list of economic interventions is the tax system. The question of tax neutrality is an old one. It seems a long while since Canada established a Royal Commission for review of the tax system in the 1960s but explicitly excluded the tariff from consideration. Now the focus of attention is on how to make sure that the system does not discriminate against our export interests or invite challenge from the United States, or elsewhere, on grounds that elements of it discriminate against imports. (The former issue underlies the current attention to the value-added type of sales tax.) The avoidance of tax discrimination (or discrimination in any form of revenue collection) underlay the stumpage fee issue in the softwood lumber dispute involving Canada and the U.S., and the differentially higher mark-ups on imported wines and spirits by provincial liquor boards.

It is important to stress that tax neutrality does not mean tax equality or the employment of similar types of taxes. For example, there was a customs union between Belgium and the Netherlands for more than three decades before the European Community was formed. The Netherlands has had a long tradition of relying on income taxation and a generally "progressive" form of revenue collection, while the Belgians stressed commodity taxes. This did not undermine either the customs union or the commitment of either country to its tax system. Part of the consequence of a higher general level of tax would be a change in the equilibrium exchange rates. Although the progressivity element might provide some inducement to mobility of professions to the country with lower income taxes, this should be balanced against all other economic and non-economic factors governing individual preferences as to location.

All of the foregoing issues bear on concerns regarding non-tariff-barriers and negotiations, but some of the most fundamental disagreements will continue to arise over those interventions that are mainly non-economic in nature.

Non-Economic Interventions

The classification of non-economic policies that have an economic impact on the international market is based on three rather widespread national priorities—national security, cultural identity and equity—and one institutional constraint—federalism.

At least since the time of Napoleon, national security requirements have been used to justify protection of domestic industry. Motivated by a British blockade in the Atlantic which prevented cane sugar from reaching France, a domestic sugar beet industry was developed, and in peacetime its perennial protection was assured. Today food requirements in times of national emergency are used as a reason for high levels of protection of domestic production. So too is the protection of the supply of clothing and energy. The argument to justify this action, however, rests on specific assumptions which are far from air-tight. It is assumed implicitly that no other sources would be available and that war time requirements could not be stored in advance so as to cover needs during a period of locating new sources or developing domestic capacity.

Not surprisingly, national security considerations of a more direct military nature also affect international markets. For example, a hegemonic power such as the United States feels compelled to maintain a large, up-to-date fighting machine. Its allies may participate in manufacturing components, or even self-contained units of military equipment for it, but only if they are a very secure source, both politically and geographically. Canada has enjoyed this position almost unique among America's allies and a major result has been the Defense Production-Sharing Agreement signed in the late 1950s. Nevertheless, in the 1988 Canada-U.S. Free Trade Agreement, little was accomplished in expansion of access for Canadian producers to U.S. government purchasing. Since a very substantial share of the goods purchased by the U.S. government are defense-related, the resistance to foreign suppliers is based mainly on the traditional argument for national security, albeit strongly buttressed by self-interest. As the Secretary of the Treasury James Baker is reported to have said to his Canadian counterpart in the last stages of the bilateral trade negotiation, "You have your culture, we have our procurement policy." The United States, however, calls upon all of its allies to play a part in defence preparedness, preferably using an integrated system based on U.S. decisions as to what are the priority weapons. It is difficult to achieve either national or international criteria for the optimum allocation of security expenditures because of the difficulty of attaching relative values to the benefits of security services and the cost-plus approach so often used on the supply side. One point worth stressing, however, is the desirability of reducing or sharing certain defense expenditures if they displace civilian activity that has a higher real payoff to consumers or investors. Thus the importance of the choice between civilian and military research and development

may be adversely affected if general fiscal constraint reduces the resources available to the civilian sector. This is the kind of concern that relates to the relative military burdens of the United States and Japan. From the Japanese perspective it strengthens the case for Japanese contributions to international institutions and programs where real resource use would be less distorted.

Canadian cultural identity boils down to the desire to reduce the differential in unit costs of a "manufacturer" of English language culture between the United States and Canada, particularly where overheads are high, as is the case in broadcasting. They are also important for books or works of art because the characteristic market for any specialized creative product in Canada is not more than one-tenth the size of that for a similar work in the United States. (The performing arts suffer less from this constraint than others.) This makes the case for cultural protection in Canada an "infant firm" case. (Of course an international reputation remedies this problem and may equalize the costs and the net benefits of a writer, painter or performing artist.)

Some kinds of protection may raise more doubts than others in the minds of trading partners. For example, the Canadian practice of taping transborder broadcasts and substituting Canadian advertising for that which supported the program in the country of origin seems impossible to justify on grounds of cultural identity. It is a rather simple quantitative import restriction favouring the Canadian advertising industry. The substituted advertising is most often undistinguishable from that produced in the United States and probably bears the stamp of U.S. culture more clearly than any other manifestation of foreign influence.

Most Canadians are content to consume (or at best to disregard) such advertising as part of their normal pattern of activity. Objectively, it would seem that the outlays by Canadians to support the advertising industry would be better directed to support programs in the public broadcasting system if the object is to reduce the influence of "non-Canadian" culture. However even though many content requirements affecting Canadian broadcasting licenses permit licensees to count foreign, but non-American, programming as part of their "Canadian" content—a practice which discriminates among foreign sources—the Canada-U.S. Free Trade Agreement exempted cultural supports from countervail action.

Intervention to increase the economic equity of any society is largely related to the expenditure side of public finance. Although there is a redistribution effect from various tax sources, the tax system in general is not redistributive because, apart from personal income taxes, most other tax forms are either proportional or regressive in their effects. Recent and proposed tax reforms seem directed primarily toward efficiency and neutrality of the system, but political pressure, especially from lower income groups, frequently results in resistance to these changes. Redistributive effects are more often on the public expenditure side—either in public supply of essential services such as education, health services and some low-cost housing; or in income support payments related to children, the unemployed and the aged, and inter-regional transfers favouring poorer provinces.[5]

There is much debate on the international effects of social programs. This debate had a high profile in the Canadian political campaign leading up to the Federal elections of November, 1988. On the one side, supporters of Canada's social programs expressed fear that there could be pressure by U.S. business and government agencies to impose countervailing duties on Canadian industries on the grounds that Canada's social programs constitute subsidies to Canadian industries. This fear was heightened by the uncertainty associated with the failure of negotiations to agree on what constitutes a countervailable subsidy and the agreement to devote up to seven years to settle this issue.

On the other hand, some spokesmen on the conservative side of the political spectrum declared that social programs would have to be modified in order to keep Canada competitive. The main thrust of this case is that business has to bear a heavier tax burden in Canada because of the social programs, and that fiscal deficits resulting from the political inability to raise taxes have resulted in heavy debt servicing costs, leaving government with reduced discretion in its public finance planning. However, greater efficiency in management and better choice of means of achieving social policy objectives are reasonable adjustments to the status quo.

The discussion of the international impact of such policies should be pursued on two specific grounds: i) What is the overall impact of differences between national social policies? and ii) Is there any significance in structural differences between countries, i.e., where one country has a significantly different mix of policies, particularly more emphasis on regional or sector specific supports?

The first question can be answered. If there are no sector-specific supports, and the general strategy is to provide wider distribution of non-traded social services or a better quality or quantity of such services, then the effect will not be to advantage any trading sector of the economy relative to other such sectors.[6]

If all services in one economy are either more cheaply supplied (for a given quality), or of higher quality than in another country, then that economy is generally more competitive and the value of its currency will increase, enabling its people to enjoy a higher standard of living, but leaving its sectors of comparative advantage unchanged. In the case for the other country (in a two-country model), its exchange rate would decline, but its comparative advantage would again remain the same. It should be added that it is the total outlay (private and public) for such social services that counts, that is, the cost and quality of services paid for by both government and by private citizens. Thus, if government contributes a higher percentage of the cost of health services in one country, but the total cost of a given quality of services is higher in the other, then the first country has the advantage.

Of course the overall difference between two economies may be near zero at the same time as there are significant differences in general programs such as health and education. One could, for example, have one country with a superior or cheaper set of health services, while the other has similar advantage in educational services. It is difficult to generalize about the international consequence of this kind of structural difference. One thing is clear, however, it would be very difficult to make a case for changes in comparative advantage that would result from differences in general

programs. It would be unthinkable that any one would try to justify countervail or other "unfair competition" action on these grounds. Indeed, neither in the GATT, nor in the Canada-U.S. negotiation, has such an argument been employed. The only policy logic arising from a superior education or social system in one country among several rich countries, is to copy it. Or if this imbalance occurs for countries at different stages of development, official assistance programs in support of infra-structural investment, become the relevant option.

When one moves to consideration of policies that have sectoral or regional dimensions, the argument becomes more complex. But it is still too simple to assume that in such cases international competitive disadvantages necessarily justify trade restrictions. If a payment to a specific industry on a nation-wide basis gives one nation's industry an advantage and is responsible for significantly injuring the competitive strength of the same industry in another country, then countervail can be justified. But if the specific firm or industry is assisted because it is in a disadvantaged region and the same firm or industry would not require a subsidy if it were located in its best economic location, then the subsidy to establish it in a less advantageous region is a pure regional development support, and has no economic relevance to the country importing the firm's products. (This may well be the case in the most recent threat of countervail from the U.S. on exports from a Nova Scotia steel firm.)

A more interesting case, because it affects a more significant export from the Atlantic provinces of Canada, is the provision for special unemployment insurance benefits for fishermen which appear to make it easier for fishermen to accept a lower market price and keep more fishermen in the industry. Since it appears to remain a comparative advantage sector for the region, the special payment to fishermen suggests that a countervail action might be justified. This problem might legally be circumvented if the payment were part of an income support system based on a guaranteed income level, unrelated to any specific industry. This would allow, and perhaps encourage, shifts by fishermen into other sectors. (Such a policy shift would not, and should not, be made just to evade international trade retaliation. More fundamental is the perceived need for a rationalization of the income support system as a whole, which would result in removal of duplication of administrative costs and in more "horizontal equity" among low income groups.)

Federalism, as an economic phenomenon, raises similar equity questions. It also calls attention to allocation systems that reflect differing private and public consumption preferences between regions and political jurisdictions. Some of these have to do with culture, as is the case in Quebec. Others relate to constitutional assignment of powers for natural resources, highways, education and health. Although the efficiency of this decentralization of policy responsibility can be debated, the importance of some of these assignments for the international interests of Canada appears to be greater than for others (e.g., resource development policy and education).

Provincial policies do have a direct impact on trade, mainly through non-tariff barriers related to purchasing policies and discrimination against foreign goods and services. One of the highest profile practices has been the pricing by provincial liquor control boards, which have characteristically charged higher mark-ups on liquors and

wines from other countries and from other provinces. Provincial governments have also pressured firms that are major suppliers to provincial agencies, to establish production facilities in their jurisdictions. Recently the four western provincial governments have indicated a willingness to move toward the removal of discrimination, at least among themselves, in purchasing policies. This announcement may have been affected by the coming of the Canada-U.S. free trade area, in that it would be embarrassing to retain trade barriers within Canada while reducing those affecting our largest trading partner. Furthermore, the cost of uneconomic policies are much greater under free trade if one seeks, in the interest of provincial preference, to compensate for the advantages of imported products. Economic interventions by provincial governments should henceforth be more influenced by international, or at least continental, market discipline.

Paths to Convergence of National Policies: The Case of the Pacific Region

The conventional approaches to international cooperation are classified as multilateral, regional and bilateral. In each case, one can also distinguish between comprehensive arrangements and issue-oriented or specific functional arrangements. The choice among these options depends on the appropriateness and feasibility of each in relation to the subject matter and country groups being considered. Only economic issues will be addressed in this part of the paper, but the problem can also be illustrated by reference to non-economic considerations such as security.

In economic relationships, appropriateness is governed mainly by the mobility factor. Is it possible to regulate or harmonize economic behaviour by arrangements at less than the global level? Can actions at the regional or even bilateral level be productive, and at the same time compatible with efforts to achieve global objectives?

A ranking of degree of mobility in economic factors is not easy, but it is clear that some factors can only be regulated, or policy coordinated, at the multilateral level, or at least by agreement among all the richer countries (e.g., monetary policy, intellectual property arrangements and guidelines, or harmonization of investment incentives). Other forms of international transaction (including the movement of goods and people) are frequently liberalized or controlled through regional, bilateral or unilateral action, usually within multilateral framework agreements.

Feasibility relates to the diversity of interests among different national actors. Political attitudes are governed by differences in size, stage of development and interventionist philosophy. It is easier for smaller developed countries with regionalized dependence on world markets to enter into international systems for liberalizing or stabilizing economic forces. The Dutch and Swedes are at the one extreme, the Indians and Brazilians at the other.

The result of efforts to harmonize or promote convergence of national policies to date has resulted in a mix of multilateral, regional and bilateral arrangements, some of which are listed below.

Figure 1
Initiatives to Harmonize National Policies

International Economic Factors	International Initiatives (Multilateral, regional, etc)	Pacific Initiatives and Proposals
Money (and stabilization policies)	IMF, OECD "Group of 7"	PECC, APEC and OPTAD*
Technology transfer	WIPO and copyright conventions	a code on TRIPS or technology transfer*
Investment	World Bank OECD, UNCTAD	guidelines (PBEC), PECC code on TRIMS*
Goods trade materials and other capital goods	GATT EEC CAN/US FTA, CER (AUST, NZ) LDC groups (ASEAN) Commodity agreements and agencies (IEA, FAO)	PECC Forum, APEC Trade Ministerial, Pacific Free Trade Group*
consumer goods		Commodity cooperation in PECC
Services trade	"Uruguay" round - framework	Framework & sector codes* Temporary access code*
Skilled worker migration	ILO, EEC	guidelines*
Unskilled worker migration	national immigration policies	harmonization consultations*

* These items have been proposed by scholars or individual political leaders.

The above table illustrates a variety of arrangements that relate to the guidance of international economic forces. Omitted are many more specialized associations, including a burgeoning group of new ones concerned with environmental questions and sustainable development of renewable resources. It seems likely that given the diversity

of issues and interests involved, a variety of approaches to convergence of policy will be required. The issues that appear to require most attention in the Pacific region are discussed below.

Issues Related to Economic Interventions

Under human resource development the areas where bilateral exchanges and joint comparative evaluations of national practices could lead to mutual benefits include: 1) how to make the best use of education systems to support economic development while leaving scope for those aspects of the system that contribute most directly to private and social consumption; and 2) how, and at what level and in what form, to introduce training that contributes to scientific "literacy" and creativeness, and by what means to transfer and adapt imported technology to different social environments.

Related to these two topics is the transfer of technology between developed and developing countries. In the Pacific, much of this has been done by multinational enterprises. The development of the newly industrialized economies of East Asia has heavily depended on Japanese technology mainly transferred by large companies. Canadian experience in these matters has involved transfers through specialized engineering services, and official development assistance programs. One Canadian institution, the International Development Research Centre, assists developing countries, financially and through technical assistance, to expand these applied research capabilities relevant to development objectives.

An exchange of know-how between Canada and Japan on technology transfer and human resource development, and an effort to explore the complementarity of methods used, might contribute to more effective North-South development programs in the Pacific. Joint programs might be contemplated, especially in resource-related projects. In view of this complementarity of Canadian and Japanese interests and skills in industrial training and technology, it might also be worth considering a joint facility in the Pacific region to address the needs and opportunities for development of resource-related technology in South East Asia, the South Pacific and China.

Under natural resource development policy, the major emphasis in the early part of this paper is related to the appropriate public policy environment for sustainable development—including the kind of tax and tenure arrangements likely to induce the sustainable exploitation of "renewable" resources. A comparison of Japanese and Canadian efforts to maintain the output of forest resource sectors could constitute a useful case study.

An aspect of this that bears on a more general trade policy concern is the subsidy-countervail issue. In elaborating guidelines for a possible Pacific code on what constitutes an "actionable" subsidy, special attention should be paid to acceptable inducements to sustainable development of the forest sector. The same might also be contemplated for other "renewable" resources, especially the fisheries.

Under the heading of market structure and other institutional development issues, there is scope for comparative studies of industrial and factor market organization in selected Pacific economies in one or more of the following areas: i) Has there been adequate emphasis on scope for medium-sized enterprise in industry, or is public policy excessively biased toward support of larger firms? ii) Has there been sufficient attention to the availability of venture capital, especially for indigenous enterprises? iii) Is a bilateral or Pacific regional agreement on labour markets (set of guideline, code, etc.) worth exploring so that the temporary admission provisions of the Canada/U.S. FTA might be extended to other countries interested in trade in services?

Wider Regional Cooperation Initiatives

Much can be accomplished through constructive and exemplary bilateral arrangements or by evident avoidance of exploitation of superior bargaining strength on the part of the larger economic powers. But larger groups can have even greater impact, especially if they reflect an ability and willingness to reconcile differences related to stages of development and social policy preferences.

In the Pacific there have been three main proposals or options for comprehensive economic cooperation or integration:

- a Pacific Free Trade Association (PAFTA);[7]
- a Pacific "OECD" usually called Organization for Pacific Trade and Development (OPTAD);
- a tripartite "consultative" organization, which has been evolving in the Pacific Economic Cooperation Conference (PECC).

Clues to the nature of the options are to be found in the structure and evolving program of three existing sub-regional economic cooperation schemes. ASEAN, the Closer Economic Relations Trade Agreement between Australia and New Zealand (CER) and the Canada-United States Free Trade Agreement.

There has been some discussion of a link between the Australia-New Zealand and the Canada-U.S. arrangement and also of possible bilateral free trade deals between the United States and Japan, or Korea or ASEAN.

The form of comprehensive organization that might emerge from these explorations would be a Pacific Free Trade Association involving the five most developed countries of the region (Australia, Canada, Japan, New Zealand and the United States) accompanied by a variety of unilateral or collective agreements of association with Korea, ASEAN, China, and perhaps Taiwan and the South Pacific Islands.

However, the negotiation of any of the above suggestions relating to free trade arrangements would become a reality only in the event of a serious deficient result from

the Uruguay Round, and a conviction that future global negotiations are unlikely to achieve much, or would benefit substantially from prior initiatives at the regional level.

Meanwhile much greater attention has been focused on the other two options or a combination of the two. The Pacific Economic Cooperation Conference emerged from a 1980 initiative and has sponsored much consultative and consensus-forming activity, especially since 1985. Its tripartite nature (business, government, and academic), is reflected in the plenary meetings and in the specialized task force and forum activities dealing with trade and investment policies, agriculture, fisheries, minerals and energy, and more recently Pacific macro-economic outlook, infrastructural cooperation (in transport, telecommunications and tourism), transfer of technology and tropical forests cooperation.[8] In some of these areas business participants have been particularly active (minerals and energy, and infrastructure), while in others academic and/or government officials have taken the lead.

In 1989, a new initiative was taken, to establish an intergovernmental forum at the Ministerial level. Prime Minister Hawke of Australia introduced the idea in a speech in Seoul in January. After much visiting and some shifting of positions, a first meeting of Ministers took place in Canberra on November 5-7. Twelve of the fourteen economies that participate in PECC were represented. As the group was intended to focus on economic issues and was labelled APEC (Asia Pacific Economic Cooperation), the group included trade ministers from most countries, economic ministers from several governments and, in most cases, foreign ministers.

The two principal results of the first APEC meeting were:

(i) The decision to schedule two trade ministers meetings during 1990 to strengthen the role of Pacific countries in the latter stages of the Uruguay round of GATT negotiations. One of these is to be in Vancouver in September; the other is planned for Brussels in December, just prior to the final meeting of GATT ministers, if the 1990 year-end deadline for the end of the negotiations is to be met. The preparation for these meetings will involve frequent consultations among trade officials from the Pacific countries active in Geneva. Thus the APEC group has an opportunity to represent and reflect the search for a package of trade liberalization moves that would serve developed and developing country interests and to set a worthwhile example in circumstances which require more North-South accord than ever before. It will be both an opportunity and a challenge to give evidence of the value of regional cooperation toward multilateral ends.

(ii) The APEC group also established a longer-term agenda for its work on matters other than trade negotiations.[9] These include efforts to improve data relating to trade and investment, to encourage analysis on a regional basis of macro-economic conditions; to explore joint efforts in trade promotion, technology exchange, and human resource development; to explore sectoral initiatives for regional cooperation in fisheries, transportation, tropical forest management, etc.

The APEC ministers are scheduled to meet at the end of July 1990 in Singapore, and again tentatively in 1991 in Korea.

The issue of linkage between PECC and APEC activity was at first unclear, but more recently, especially since PECC, at its plenary meeting in Auckland, November 13-15, 1989, expressed its willingness to work closely with APEC, there has been growing consultation between these organizations. Recent official meetings preparatory to APEC II in July have indicated that on several matters APEC plans to build on PECC's task force and forum activity, notably in relation to Pacific economic outlook, trade policy and fisheries.

Looking ahead, if the APEC process is to thrive, it seems likely that the nourishment of the PECC will be seen as a vital support—as a source of ideas and information and as a means of consensus-building on priority policy issues, and as a constituency for those in government. In some areas it will be seen as politically advantageous to rely more heavily on PECC to identify the dimensions of common ground and converging policy. For example, how to deal with China's role in GATT and that of Taiwan; how to harmonize policies affecting trade in goods and services for which formal barriers erected by national governments are less important, and how to identify and promote economic cooperation requiring a mix of trade, technology transfer and investment activity. Many other examples can be suggested in an era when formal trade barriers addressed wholly by single externally-oriented ministries of national governments are the source of a declining share of the constraints on international transactions.

The scope for building consensus through research and studies on a regional basis is widening. Bilateral research cooperation between countries such as Japan and Canada can provide leadership.

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8. For information on PECC, *Reports* of the plenary meetings can be consulted, e.g., for the Fifth PECC, published for the Canadian National Committee for Pacific Economic Cooperation by the Canadian Chamber of Commerce, Ottawa, 1987; and of the Sixth PECC, published by the Japan National Committee for Pacific Economic Cooperation, Tokyo, 1988. Also related to the results of PECC task force and forum activities are *Pacific Economic Outlook*, Washington, D.C., U.S. National Committee for Pacific Economic Cooperation, 1989; and *Pacific Initiatives in Global Trade*, published for PECC by the Institute for Research on Public Policy, 1990.

9. Asia Pacific Economic Cooperation, "Joint Statement" Ministerial-Level meeting and "Summary Statement by the Chairman", Senator the Honourable Gareth Evans, Canberra, November 7, 1989.

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